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ABSTRACT

Presented is a general discussion of women's aquatics. Standards in sports for girls and women are detailed as is a statement of beliefs by the Division for Girls and Women's Sports. Various committees, rule guides, and commissions are also briefly mentioned. This booklet then presents a series of related articles and discussions. (JB)

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GUIDE

JULY 1971 – JULY 1973

With Official Rules

Editor
Betty V. Edmondson

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Contents

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The Division for Girls and Women's Sports is a nonprofit educational organization designed to serve the needs and interests of administrators, teachers, leaders, and participants in sports programs for girls and women. Active members of the Division are women members of the American Association for Health, Physical Education, and Recreation who are interested in sports for girls and women and who participate in the work of the Division. These women are professional leaders in schools, colleges, community centers, industrial plants, military services, public and private clubs, and agencies.

The purposes of DGWS are

To promote healthful and desirable sports programs for girls and women of all ages. *A sport for every girl and every girl in a sport.*

To provide leadership for sports and recreation programs and to promote such programs.

To formulate and publicize guiding principles and standards for administrators, leaders, officials, and players.

To provide materials and disseminate information for leaders, players, and officials including rules, technique articles, and other teaching materials.

To stimulate and evaluate research in girls and women's sports.

To provide "on call" service when, where, and as requested. The national office has a DGWS consultant, and each state has a chairman of DGWS. Their names are listed in each DGWS *Basketball Guide.*

Those wishing to provide programs for the highly skilled may obtain the following guidelines from DGWS-AAHPER, 1201 Sixteenth St., N.W., Washington, D.C. 20036 for 10¢ each.

"Guidelines for Interscholastic Athletic Programs for Junior High School Girls"

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"Guidelines for Intercollegiate Athletic Programs for Women."

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SPECIAL PUBLICATIONS–see inside back cover.

STANDARDS IN SPORTS FOR GIRLS AND WOMEN

Standards in sports activities for girls and women should be based upon the following:

1. Sports activities for girls and women should be taught, coached, and officiated by qualified women whenever and wherever possible.
2. Programs should provide every girl with a wide variety of activities.
3. The results of competition should be judged in terms of *benefits to the participants* rather than by the winning of championships or the athletic or commercial advantage to schools or organizations.

Health and Safety Standards for Players

Careful supervision of the health of all players must be provided by–

1. An examination by a qualified physician
2. Written permission by a qualified physician after serious illness or injury

3. Removal of players when they are injured or overfatigued or show signs of emotional instability
4. A healthful, safe, and sanitary environment for sports activity
5. Limitations of competition to a geographical area which will permit players to return at reasonable hours; provision of safe transportation

General Policies

1. Select the members of all teams so that they play against those of approximately the same ability and maturity.
2. Arrange the schedule of games so that there will be no more than one highly competitive game a week for any one team or girl in any one sport.
3. Discourage any girl from practicing with, or playing with, a team for more than one group while competing in that sport during the same sport season.
4. Promote social events in connection with all forms of competition.

DGWS STATEMENT OF BELIEFS

We believe that opportunities for instruction and participation in sports should be included in the educational experiences of every girl. Sports are an integral part of the culture in which we live. Sports skills and sports participation are valuable social and recreational tools which may be used to enrich the lives of women in our society.

We believe that sports opportunities at all levels of skill should be available to girls and women who wish to take advantage of these experiences. Competition and cooperation may be demonstrated in all sports programs although the type and intensity of the competition will vary with the degree or level of skill of the participants. An understanding of the relationship between competition and cooperation and of how to utilize both within the accepted framework of our society is one of the desirable outcomes of sports participation.

We believe in the importance of physical activity in the maintenance of the general health of the participant.

We believe that participation in sports contributes to the development of self-confidence and to the establishment of desirable interpersonal relations.

For these reasons, *we believe* that girls and women of all ages should be provided with comprehensive school and community programs of sports and recreation. In addition, they should be strongly and actively encouraged to take part in such programs.

PROGRAM

We believe that sports programs for girls and women should be broad, varied, and planned for participants at differing levels of skill. There should be full awareness of the wide span of individual differences so that all types, ages, and skill levels are considered in the planning of sports programs. In conducting the various phases of sports programs, principles must guide action. These principles should be based on the latest and soundest knowledge regarding

1. Growth and development factors
2. Motor learning
3. Social and individual maturation and adjustment
4. The values of sports participation as recognized in our culture.

Elementary Schools (grades 1-6)

We believe in planned, comprehensive, and balanced programs of physical education for every girl in the elementary program. These should provide experiences in basic movements for example, skipping and simple dance steps, bending, reaching, and climbing—and in a wide variety of activities which require basic sport skills such as catching, throwing, batting, and kicking.

We believe that intramural sports experiences in appropriately modified sports activities should supplement an instructional program for girls in grades 4, 5, and 6, and that in most cases these experiences will be sufficiently stimulating and competitive for the highly skilled girl. We believe extramural sports activities, if included in the upper elementary grades, should be limited to occasional play days (sports groups or teams composed of representatives from several schools or units), sports days, and invitational events.

Secondary Schools (grades 7-12)

We believe that in secondary schools a program of intramural and extramural participation should be arranged to augment a sound and comprehensive instructional program in physical education for all girls. Extramural programs should not be organized until there are broad instructional and intramural programs and a sufficient allotment of time, facilities, and personnel for new programs.

Colleges and Universities

We believe that college and university instructional programs should go beyond those activities usually included in the high school program. There should be opportunities to explore and develop skills in a variety of activities, with emphasis on individual sports. It is desirable that opportunities for extramural experiences beyond the intramural program be accessible to the highly skilled young women who wish these opportunities.

Forms of Competition

Intramural competition is sports competition in which all participants are identified with the same school, community center, club, organization, institution, or industry, or are residents of a designated small neighborhood or community.

Extramural competition is a plan of sports competition in which participants from two or more schools, community centers, clubs, organizations, institutions, industries, or neighborhoods compete. The forms of extramural competition include

1. Sports days—school or sports group participates as a unit
2. Telegraphic meets - results are compared by wire or mail
3. Invitational events—symposiums, games, or matches to which a school or sports group invites one or more teams or individuals to participate.
4. Interscholastic, intercollegiate, or interagency programs--groups which are trained and coached play a series of scheduled games and/or tournaments with like teams from other schools, cities, or organizations.

International Competition involves players from different nations and provides sports experiences for individuals or groups with exceptional ability and emotional maturity. This type of competition under some conditions could include secondary school girls, but usually it is planned for more mature participants.

Corecreational activities are designed to give boys and girls opportunities to participate on the same team against a team of like composition, provided the activities do not involve body contact. The basis for formation of teams should be to promote good team play. We believe that girls should be p ohibited from participating (1) on a boys intercollegiate or interscl lastic team; (2) against a boys intercollegiate or interscholastic eam; and (3) against a boy in a scheduled intercollegiate or int :scholastic contest.

ADMINISTRATION

We believe that certain *safeguards* should be provided to protect the health and well-being of participants. Adequate health and insurance protection should be secured by the institution. First aid services and emergency medical care should be available during all scheduled interscholastic sports events. Qualified professional leaders should ensure a proper period for conditioning of players, a safe environment including equipment and facilities, a schedule with a limited number of games, and similar measures.

We believe that sports *officiating* should be the responsibility of those who know and use DGWS approved rules. Officials should hold current ratings in those sports in which ratings are given.

We believe that the entire *financing* of girls and women's sports programs should be included in the total school budget. It is suggested that income be handled as a regular school income item.

We believe that the *scheduling* of sports activities for girls and women should be in accordance with their needs and that their schedule should not be required to conform to a league schedule established for boys and men's sports.

We believe that excellence of achievement should be given *recognition* and that the intrinsic values which accrue from the pursuit of excellence are of primary importance. We believe that, when awards are given, they should be inexpensive tokens of a symbolic type, such as ribbons, letters, and small pins.

We believe that expert teaching and quality programs generate their own best *public relations*. It is suggested that an effective plan be developed for interpreting the values of the sports program to parents, teachers in other fields, and interested members of the school or college community, including the press. A procedure which has proved successful is to invite key groups to a selection of demonstrations and sports events at different levels, so that they may see effective programs in action.

LEADERSHIP

We believe that good leadership is essential to the desirable conduct of the sports program. The qualified leader meets the standards set by the profession, including an understanding of (1) the place and purpose of sports in education, (2) the growth and development of children and youth, (3) the effects of exercise on the human organism, (4) first aid and accident prevention, (5) understanding of specific skills, and (6) sound teaching methods. Personal experience in organized extramural competition is desirable for the young woman planning to become a leader or teacher of women's sports. The leader should demonstrate personal integrity and a primary concern for the welfare of the participant.

POLICY-MAKING

And finally, we believe that all leaders, teachers, and coaches of girls and women's sports should be encouraged to take an active part in the policy decisions which affect planning, organizing, and conducting sports programs for girls and women. Leaders should make sure that qualified women are appointed to the governing sports bodies at all levels—local, state, national, and international—to ensure that programs are in the best interest of those who participate.

SPORTS GUIDES AND OFFICIAL RULES COMMITTEE INTEREST INDICATOR

The SGOR Committee is endeavoring to broaden its base of personnel and to strengthen its services to *Guide* readers. The purpose of this form is to offer readers an opportunity to join us in meeting this need. Please complete this form and send it to the SGOR Associate Chairman-elect, whose name and address appear on page 16.

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Training For Butterfly: Kick or Swim?

KATHARINE M. BARTHELS
MARLENE J. ADRIAN

Miss Barthels earned her B.S. degree from the University of California, Los Angeles and her M.A. from the University of California, Santa Barbara, where she formerly taught, specializing in aquatics. Currently she is studying and conducting research in the Ph.D. program in biomechanics at Washington State University, Pullman.

Dr. Adrian received her B.S. degree from Wisconsin State University, LaCrosse, and her Master's degree from the University of Wisconsin, Madison. While at Springfield College, Massachusetts, she earned her doctorate and conducted research in the area of swimming. Currently, at Washington State University, she is continuing this research, as well as teaching kinesiology and coordinating the Ph.D. program in biomechanics in the department of physical education.

In recent years, much information has become available to teachers and coaches who seek effective methods of promoting skill development and increased speed and efficiency of their butterfly swimmers. A good deal of this information has been derived from direct observation and analysis of the stroke mechanics of champions. Training methods and schedules used today are results of creative efforts of individual teachers and coaches based on traditional practices, personal experience, and scientific experimentation. Interpretation and communication of the results of the last have contributed significantly to the relatively recent innovations which have occurred in coaching practices. Results of one investigation of the dolphin kick are discussed here in order to raise some questions about existing training techniques for butterfly swimmers and to suggest some practical applications of the information gathered.

The investigation[1] involved four male varsity swimmers who performed the dolphin kick using the legs alone at warm-up and sprint

[1] Barthels, Katharine and Adrian, Marlene. "Variability in the Dolphin Kick Under Four Conditions." *Proceedings of Biomechanics in Swimming* 1st International Symposium "Biomechanics in Swimming," Brussels, September, 1970.

paces with the use of a kick board and also performed the whole butterfly stroke at both paces. Each swimmer set his own pace as he normally would in practice drills. The movements of the hip, knee, and ankle joints were studied by means of electrogoniometry and the involvement of selected trunk, thigh and lower leg muscles was recorded electromyographically.

Results and Applications of Research

The major findings of this investigation have been summarized as follows and implications for training procedures appear directly after each finding.

1. *Definite differences existed in the timing and patterns of hip and knee action between kicking with the legs alone and kicking during the full stroke. When the legs were used alone, in both the slow and sprint cadences, successive kicks were identical within each swimming condition. In the slow and sprint strokes, however, an alternating major and minor kick pattern was apparent.*

These results indicate clearly that kicking form depended upon the nature of the practice drill. This is of significance when one considers the advisability of practicing the movements which are to be used in actual competition. A common practice of coaches who are concerned with defects in a stroke which has already been learned is to isolate the defective part of the stroke and administer drills designed to perfect the movement and provide enough repetition to ensure over-learning of that part of the stroke. This method of isolation and drill is frequently used for refining the dolphin kick. One might question the value of practicing identical kicks when drilling with a kick board since the competitive stroke employs differently timed major and minor kicks in each stroke cycle. Consideration might be given to the possible modification of kicking drills which would require the swimmers to execute major and minor kicks with the board thus simulating the kicking pattern used in actual competition. This, however, may not be valid modification since the alternating pattern observed in the full stroke probably occurred as a necessary adjustment to facilitate smooth coordination with movements of the head, arms, and trunk and cannot be achieved easily by practicing the leg kick alone. It appears to be more appropriate, therefore, to employ the full stroke, slow or sprint, rather than the kick alone, if refinement of the timing of leg action within the stroke is the desired objective.

There are coaches who propose another rationale for using kicking drills. They advise that the drills add variety to workouts and are a form of conditioning in that they place a certain amount of overload on the legs. This rationale fails to consider the effects of initial learning and transfer of learning to the butterfly stroke. What a

swimmer practices initially may become over-learned so that it inhibits the development of a more effective movement pattern. Similarly, transfer of the identical kicking pattern to the butterfly stroke also has an inhibiting effect upon proper stroke timing and coordination.

2. *Differences in range of movement at the hip and knee joints also were apparent between swimming the full stroke at a slow pace and at a sprint pace. The ranges of motion at both the hip and knee were greater during the sprint stroke than during the stroke performed at warm-up cadence, even though no two swimmers had the same range of motion at the hip or at the knee in either the warm-up or sprint strokes. The mean velocity of the warm-up stroke was approximately five feet per second and that of the sprint stroke approximately six feet per second.*

The major significance of these noted differences in ranges of movement is that a swimmer must practice sprinting the butterfly if he wishes to practice the movements used in actual competition. Not only do the whole versus part conditions show differences in movement but the speed conditions also affect the movement range and timing.

Furthermore, the individuality of movement patterns, identified in other research in numerous sports, must not be overlooked. Individuality of movements may be a result of differences in body structure, in arm mechanics, in strength of muscle groups and in training and coaching techniques. No definite statement can be made from this finding regarding joint range of motion which a swimmer should attain for butterfly stroking.

3. *More muscular activity was recorded in the sprint kick than in the slow kick and more in the sprint stroke than in the slow stroke for the rectus femoris, biceps femoris, lumbar erector spinae, and rectus abdominis muscles. The greatest activity of the thigh muscles was produced during the sprint stroke; the lowest level of activity was during the slow stroke. Although the greatest amount of activity in the trunk muscles also occurred during sprint stroking, the least amount occurred during the slow kick. Relatively little activity was noted in the lower leg muscles (tibialis anterior and medial gastrocnemius).*

In terms of placing a work overload on the thigh and trunk muscles, it appeared as though drill in sprint stroking would best accomplish this objective. The activity that was recorded in the lower leg muscles was determined to be the result of contractions caused by stretch reflexes stimulated by water pressure against the foot, rather than of contractions which initiated flexion or extension at the ankle. These findings suggest that emphasis should be placed on developing strength, flexibility, and endurance of the quadriceps and

hamstrings as they function at both the hip and knee joints. Developing flexibility for greater plantar-flexion at the ankle appears to be more worthwhile than concentrating on strength development in the lower leg. During the slow and sprint kicking, the rectus abdominis probably served to stabilize the trunk prior to hip flexion. During the slow and sprint stroking, however, the activity appeared to stabilize at first, then to contribute to lumbar flexion as the hips were flexed during the downbeat of the legs. Thus abdominal activity also suggested that greater stabilization of the trunk was necessary to facilitate the arm stroke movements as well as the leg movements. The implication here is that the conditioning program should not ignore the essential roles played by the trunk muscles and that attention should be given to developing sufficient flexibility, strength, and endurance of the abdominal and back muscles.

Conclusions

One might generalize with the well known concept that muscles function specific to the task. Patterns and range of movement are produced as a result of muscular function. In order, then, to produce a champion butterfly swimmer the stroke must be practiced at the speed of actual competition. This reinforces the neural motor patterning for development of desired timing and force application. Frequent practice will also provide for strength improvement. Additional strength may be gained best through dissimilar exercise rather than through leg kicking drills. Strong erector spinae and abdominal muscles may be as important to the execution of the sprint butterfly stroke as are the thigh muscles.

Licking The Whip Kick

SANORA BRENNER

Miss Brenner is an instructor in the department of physical education for women at the University of Illinois, Urbana. She holds a B.S. degree from Brooklyn College, Brooklyn, N.Y., and an M.A. degree from Ohio University, Athens.

Too many beginning and experienced water safety instructors tend to shy away from teaching the whip kick. An inability of the instructor to execute the kick comfortably and correctly, or an unpleasant learning experience might make this particular skill a frightening one to teach. If you feel this way about the whip kick, perhaps the following progression will help you and your student swimmers.

The progression for teaching the whip kick relies heavily on successfully learning the inverted whip kick. With a kickboard for support the beginning student, lying on her back, can concentrate solely on the kick. After mastering it in a supine position, the student changes to a vertical position and adds a slight hip flexion to the kick. All cues and terminology in the vertical position remain the same as for the inverted whip kick. Again, a kickboard may be used for support. The last step in the teaching progression is the whip kick in a prone position.

Teaching the inverted whip kick familiarizes the student with basic concepts, terminology, and cue words. Students begin to realize that regardless of body position, the whip kick, or a variation of it, will propel them in a head first direction. This illustrates the basic Newtonian principle that for every action there is an equal and opposite reaction. Since force is exerted in the direction of the feet, propulsion of the swimmer will be in the direction of the head.

To illustrate the design and execution of the inverted whip kick, an analogy of a triangle can be used. The student should be told that the toes, when at the surface of the water, are at the apex of the triangle. As the feet and legs are submerged the sides of the triangle are being drawn, with the base of the triangle located below and slightly wider than the swimmer's hips. This is the recovery phase of the skill. The propulsive phase of the skill occurs when the water is pushed toward the apex of the triangle. The force produced will enable the swimmer to move in a head first direction.

Instruction of the inverted whip can be started on the pool deck. Throughout the progression, the same cues are used to explain the kick. In teaching swimming it is advisable that all directional cues should use the body as the point of reference, rather than the exter-

nal environment. For example, one should say "bring the feet towards the face" instead of "point the toes towards the ceiling."

As with most kicks, instruction begins with the recovery phase. The student sits at the edge of the pool, leans backwards and supports her weight with elbows and forearms. The legs are extended over the water and a straight line is formed from the tip of the toes to the waist. From this starting position the student must bring the feet towards the face, flex (dorsal flexion) the ankles, and turn the feet outward, keeping the heels in position to form a "V." From this position, the student forces the heels into the water and pulls the heels apart and towards the hips. The student is drawing the sides of the triangle, as previously indicated. If executed correctly, this phase of the skill is completed with the feet as close to the hips as possible, the heels positioned slightly wider than the width of the hips, the thighs inwardly rotated at the hips, and knee and ankle joints flexed with ankles pronated.

The propulsion phase of the kick provides the force and determines direction. This movement is accomplished by pushing the water with the inside (medial) borders of the feet along the sides of the imaginary triangle towards the apex. Just before the knees are fully straightened out and the feet come together, the ankles are extended (plantar flexed), enabling the soles of the feet to push the water more effectively into the apex of the triangle. The swimmer now has terminated the kick and is once again in the starting position for the recovery phase.

As soon as the student understands the component parts of the inverted whip kick and has performed them mimetically and rhythmically on land, she is ready to try the kick in the water. Instruction can be expedited by the effective use of a kickboard. In the supine position, the board is held at the level of the pelvis, parallel to the long axis of the body. It is important to position the board over the hip joint where it will support the body and also make more apparent if the student's body position is correct. If the body position is correct there is a relatively straight line from knees through hips to shoulders. If body position is incorrect, the hips submerge and the knees come out of the water. The result of this error is increased resistance, resulting in inefficiency. To correct the error, the student should be directed to forcefully push the heels into the water, as this will tend to keep the knees and thighs on the surface of the water.

Once swimmers can successfully accomplish the inverted whip kick, they are ready to try the kick in a vertical position, that is, while treading water. Now the kickboard is held in front, not against the body. The board should be held comfortably, and kept flat on the surface of the water. Using the same cues, begin with the recov-

ery phase. Many swimmers will flex slightly at the hip, knee, and ankle joints, that is, the knees will be raised towards the chest. This is now permissible and advisable because hip flexion will keep the feet submerged when the swimmer assumes the prone position. Remind students to keep the thighs turned inward. There may be a tendency for the knees to turn out. If this occurs, suggest that they try to keep the top part of the thighs together. Avoid having the knees touch each other as this severely limits the student's range of movement.

During the propulsive phase of the kick, the student must remember to keep the ankles flexed and to press the water towards the apex of the triangle with the inside border of the feet. Near the end of the propulsive phase, the ankles straighten and the toes are placed in the apex of the triangle which is on the surface of the water. Indicate to the student that by forcing the water in the direction of the feet she maintains a vertical position with head above water.

The last step in this progression is the whip kick in a prone position. This position is assumed after the student has correctly executed the kick in the vertical position. The transition from the vertical to the prone position is accomplished by directing the swimmer to lean forward and put her face into the water. This will assist the individual to "level off" because as the face is placed in the water, the feet will rise. The student may use one hand to assist in the transition from the vertical to the prone position, but propulsion should come from the legs. If a correct and forceful kick is achieved, the whip kick in the prone position should come more easily.

A Comparison of the Scissors Kick and Inverted Scissors Kick

DUANE BUCHANAN

Duane Buchanan is an instructor of physical education at Illinois State University, Normal, Illinois. She received her B.S. degree from the University of Illinois at Urbana and her M.S. from Illinois State University. Mrs. Buchanan was a member of a swimming honorary during her undergraduate years and since then has taught various aquatics courses.

In the area of swimming, there has been relatively more investigation of competitive strokes than of strokes used for recreational purposes. The side stroke is among those recreational strokes which have not been studied in detail; however, the study of this stroke seems to be of value because of its widespread usage. It is one of the easiest strokes to master and can be used by young or old, by highly skilled or less skilled swimmer, and for recreational swimming or lifesaving.

Two types of leg kicking actions are associated with the side stroke: the scissors kick and the inverted scissors kick. The possibility of two types of leg kicking actions and the questions of which kick to use and whether to change sides or remain on the same side when using the two kicking actions have given rise to conflicting viewpoints in regard to the stroke. These points of conflict refer to such matters as relative propelling force produced by the two leg kicking actions, details of mechanical patterning, body orientation, and whether the side on which the stroke is performed should be optional. These kinds of unanswered questions lead to still further questions of teaching and programing.

In the 1968 edition of the Red Cross Textbook, *Swimming and Water Safety*, the inverted scissors kick is not mentioned. Yet in the *Instructors Manual*, it is recommended that the inverted scissors kick be taught in the swimmers course. This means an individual in an instructional program could have completed three courses in swimming without ever having had instruction in the inverted scissors kick which has been said by some to be more efficient.

The questions raised concerning the side stroke were the motivation for a study in which the scissors kick and inverted scissors kick were analyzed by means of cinematography. Differences in mechanical patterning were found between the two kicks in the range of movement in hip, knee, and ankle joints. The most significant

difference was that of hyperextension in the hip joint. This hyperextension was found to be greater in the inverted scissors kick than in the scissors kick while it did not affect the body position to a great extent by causing the body to roll from the side onto the back. Added hyperextension in the scissors kick, however, produced more change in body position. Because of these factors, it was thought that the greater hyperextension and less roll in the inverted scissors kick could possibly affect the force developed during the propulsive phase of the kick and thus have an effect upon the efficiency of the kick.

If it is true that one kick is more efficient than the other, perhaps more consideration should be given to the sequence of teaching the two kicks. Efficiency in a kick could refer to the force that is developed during the propulsive phase of the kick which enables an individual to move through the water. Force is not the only factor which determines efficiency because power, speed, and economy of movement are also implied as determining factors. However, the comparison of force can be a means of indicating the efficiency of a stroke.

To determine the relative effectiveness of the two kicks, an instrument was constructed from which data was obtained that indicated the apparent propulsive force developed by each kick. A pilot study was completed and was followed by a study testing the reliability of the instrument used.* When it was determined that the instrument was reliable, the actual comparison of the two kicks was made. The analysis of data showed there was *no significant difference* between the apparent propulsive force developed in the scissors kick and inverted scissors kick in swimmers of different skill levels.

Although the results of one study are not conclusive, we should consider how these results may affect the teaching of swimming. Since the study indicated there was no difference between the apparent propulsive forces developed in the two kicks, would this affect the teaching sequence of the two kicks? Is it necessary for the scissors kick to be introduced first and the inverted scissors kick taught in a later course or maybe not at all? Should one of the kicks be dropped completely from an instructional program? Should both kicks be introduced at the same time when teaching the side stroke and then allow the students to decide which kick is more comfortable and efficient for them? Perhaps further research is needed to answer these questions.

*For information regarding the test and research design, write the author at Illinois State University, Normal, Illinois 61761.

The Frightened Neophyte: Why Not Start With The Mask and Snorkel?

CALVIN A. GONGWER

Mr. Gongwer received his B.S. degree from Columbia University, New York and his M.S. from California Institute of Technology, Pasadena. He has been responsible for the conception and development of a number of new underwater and hydrodynamic devices. His professional experiences include California Technology, Pasadena, member of the teaching staff and a graduate student; General Motors Corporation, Research Laboratories, division mechanical engineer; Navy Underwater Sound Laboratory, New London, Connecticut, member of the scientific staff, Aerojet-General Corporation, manager of oceanics division, consultant; and presently the president and consultant of the Innerspace Corporation, Glendale, California.

We are all familiar with the sight of beginning swimmers struggling to raise their heads to breathe while their eyes burn with pool chemicals and bravely overcoming a feeling of suffocation from water in the nose and sinus cavities. As their skill improves they become stronger and better able to raise their heads and used to the eye irritation. *It is the writer's opinion that this is an unnecessarily slow and traumatic experience which results from outmoded concepts of aquatics.* As a consequence it seems that few but the talented ever become relaxed enough to enjoy the water and to continue swimming for any considerable length of time. Moreover, this has given rise to the myth that it takes enormous strength to swim long distances. In short, it seems that many methods of teaching do not prepare the great mass of aquatically untalented individuals to enjoy swimming throughout their lives for recreation, safety, and health. Often, the sport is simply not fun, safe, or comfortable the way students have been taught and they do not continue to participate in aquatics beyond their beginning class.

This situation is no longer necessary because of concepts which have evolved in the sport of skin diving. This is swimming with mask, snorkel, and fins and is not to be confused with scuba diving. This equipment appeared for the first time for general usage after World War II but is now used widely. However, its use is still restricted by

regulations in many public pools. If rules could be relaxed enough to permit the use of the mask, snorkel, and fin combination in public pools, the teaching of swimming could be changed to produce swimmers who would have a lifetime sport providing enormous benefits in health, recreation and interest. Admittedly, pools of educational institutions are not so restricted but the ideas of teaching and practicing swimming are influenced by the public pool situation.

A course in beginning swimming could *proceed like this*: The student would be fitted with a good mask and snorkel. The fins can come later. He would be told to wear them on land and breathe through them several minutes a day or longer and for several days until he overcomes the slight feeling of claustrophobia which often occurs at first. This is before he gets into the water. He should be shown how to suck on the mask to test the seal on his face. After he is used to wearing them out of the water he should then get into a warm, shallow pool with a gutter or other support and hang on. *Eighty-five degrees Fahrenheit is the absolute minimum temperature recommended in order to help the beginning student to relax and not shiver.*

He then crouches slowly until his mouth and part of the mask are underwater enough for him to see the excellent underwater vision provided by the mask and to see that the snorkel permits him to breathe even though his mouth is underwater. He maintains his grip on the gutter with both hands, and alternately crouches and raises his head putting his head deeper each time. He keeps this up until the tip of his snorkel submerges. He has already been instructed on what to expect and to hold his breath when this happens. He is made aware of this by the increased resistance to inhalation when the tip submerges and water enters the snorkel. This is the signal he will learn to recognize so well that he doesn't need to think about it. (The float valve found on early snorkels has been found to be unnecessary.) During this whole time he has his hands firmly on the gutter of the pool so he can spring up at the slightest desire to do so. He is shown how to clear the snorkel by blowing and to clear the mask by using the standard techniques of skin diving.

When he has practiced this as long as necessary (perhaps several sessions), he will discover that with his head in the water, all he has to do is pick up his feet to float. He can still keep his hands on the gutter but with the ability to see clearly underwater with his face down, he does not become disoriented and traumatized as with ducking the bare face with the eyes tightly closed! Thus he is free to experiment with letting go of the gutter, while all the time breathing easily with his face and head in the water. The discovery of clear vision underwater is so intriguing, the individual's interest is usually captured and he is motivated into further experimentation. All the

while the eyes are protected from the pool chemicals and the nose is protected from water intrusion. The individual is comfortable in the water and from this point progress is very rapid

Propulsion and body attitude control is provided by experimentation with the arms, legs, and fins and he is now swimming. The big step from fear to relaxation comes when he feels secure enough to pick up his feet and discovers he can comfortably float face down. Diving under the water in addition to surface swimming, will now be only a matter of practice with propulsion and body attitude control while holding the breath.

Thus, the neophyte swimmer is introduced to swimming as a three dimensional process since he is not surface bound as is traditionally the case. Traditional swimming skills and techniques without mask and snorkel can then be learned as a later phase of the course. Even survival skills such as "drown-proofing" come as a matter of course to one schooled in the mask-snorkel.

With new confidence and courage, the neophyte swimmer is stimulated to improve and discover the intriguing and fascinating wonders of an aquatic world It is believed that a gratifying percentage of these people will continue to improve swimming skills, and practice them throughout their entire adult lives.

Objective Evaluation in Swimming*

PEG FOSTER

Miss Foster is an assistant professor of physical education at Beloit College, Beloit, Wisconsin. She has been very active in aquatic art both as a performer and as a coach.

Many schools and organizations administer mass swimming tests for the purpose of classification or exemption from the swimming program. Expedient administration is usually demanded, yet a high degree of discrimination is sought.

There are probably as many exemption-classification tests as there are institutions using them. In a thirty-year survey[1] the following are stated as examples of tests used: "front dive, swim for 20 minutes, sink and save yourself twice, float two minutes," and "swim across small rented pool, any stroke." These are rather extreme examples. A more modern version might contain a three to five minute swim, testing the ability to keep afloat or keep moving in the water for that length of time, plus the ability to do from three to five of the basic strokes in good form (as judged by the test administrator) and perhaps the ability to tread water, float, and dive.

These are indeed worthy goals but with two shortcomings. First, the tests are time consuming to administer and second, they depend upon highly subjective measurements. Is there an accurate, meaningful, expedient measure that is discriminating and lacks dependence on human judgement?

The first question you must ask yourself is, "what characteristics am I attempting to test?" If your answer is that you wish to evaluate relative skill or efficiency of propulsion through the water, then read further. In testing efficiency of propulsion, it is not important what style the swimmer employs or whether she has learned specific aquatic skills such as diving or motionless back floating. What, then, does efficiency in propulsion mean? It is the amount of output (in terms of distance traveled and time consumed) per unit of input (each stroke) or how much of the energy (input) consumed in swimming results in gainful output (distance and time).

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*This article appeared in the *30th Annual Report of the Women's National Aquatic Forum* and is reprinted with permission.

[1]Foster, Margaret V. "A Comparative Study of Teaching Methods in Swimming As Affected by Fear Reduction." Unpublished thesis, University of Wisconsin, Madison, Wisconsin, 1962.

Efficiency has always been evaluated in swimming but in terms of a visual judgment which is mentally compared to a model swimmer in the mind's eye of the judge. This model swimmer is a very proficient one who has rhythm, perfect timing, relaxed recovery, power, efficient body position, total coordination, and other rather indefinable characteristics. The judge then simply tries to decide how closely the swimmer resembles his "mind's-eye-model." This judgment can vary markedly among judges as has been shown repeatedly in studies. Instead, why not get a measure of the sum effects of these intangibles by measuring the amount of result derived per effort or efficiency level which is not variable, is not subjective, is quick to administer, and is closely discriminating?

Basically we teach two classifications of swim strokes: 1) those making use of a glide, and 2) continuous, or nonglide strokes.

Glide strokes. Recreationally an efficient glide stroke is one in which the greatest possible power (force) is applied to each stroke, resulting in the longest possible glide while still maintaining momentum. Optimum force is largely due to the timing and position of the leg whip including ankle extension. The greater the force applied, in the proper direction, and the more streamlined and horizontal the body, the greater is the resultant, or glide. To measure effectively the magnitude of this resultant, it is necessary to record the *distance* and *time* involved in performing each stroke. Distance alone will not give an accurate assessment of skill in a glide stroke because the glide can be overextended voluntarily by the student if distance alone is the goal, such that most or all momentum is lost between strokes. The buoyant student can drift along, barely moving, and record a score that reflects skill greater than actually exists. An equally skilled student who performs the stroke in the most efficient way (that of extending the glide only to the point where momentum is rapidly being lost) would be penalized in score, if distance alone were used, by traveling less distance with each stroke. By adding the factor of time, converted to a velocity index, presence of overgliding or undergliding is detected, taken into account, and corrected if necessary. The student should be made aware that the time factor in no way means that she should hurry the performance of the glide stroke.

Administration of the glide-stroke test. The student stands in the water at the shallow end of the pool, three to five feet away from the side, and upon the signal "go" proceeds toward the deep end executing her best, most powerful glide stroke, attempting to maintain as long a glide as the power of the stroke allows. It must be impressed upon the student that she should avoid gliding so long that momentum diminishes. The test administrator walks along the deck, which has been marked off in one foot intervals, staying in line

with the swimmer's feet. When the swimmer is well underway (usually one or two full strokes), the examiner places a marker on the deck in line with the feet at the moment of hesitation that occurs following withdrawal of the legs in the recovery phase of the stroke, and simultaneously begins timing with a stop watch. The administrator progresses with the swimmer and counts five complete strokes. the placement of the marker is counted at "one," and when the feet are withdrawn for the sixth time (five full strokes later) the administrator simultaneously stops the watch and marks the spot in line with the feet. Record is made of, (1) the actual distance to the nearest foot traveled in five full strokes after a start (distance between the two markers), and (2) the time consumed to the nearest tenth of a second. From the distance and time scores, a velocity index is calculated (distance divided by time). The two criteria for glide stroke efficiency are velocity and distance traveled. Minimum standards in both criteria must be met.

Experience has shown that a velocity score less than 1.8 suggests overgliding, and thus a lack of efficiency in the stroke. A velocity score higher than 2.2 suggests speeding and thus does not utilize as much glide as possible. If a student's velocity score is considerably higher than the standard and as a result does not attain the minimal distance standard, the performance should be repeated with directions to extend the glide. The reverse situation can also occur; since distance and velocity are inversely related, a student may exceed one standard at the expense of the other when, in fact, both could be met. To be proficient in a glide stroke it is necessary to meet both the distance and velocity standards. Poor swimmers may reach one standard or neither with a large range of combinations of scores possible, reflecting precisely the power generated by the stroke. Good swimmers will reach both standards yet demonstrate a wide range of skill above the standards either in superior distance scores, or superior velocity scores, or both.

In adapting this test to your individual situation, it will be necessary to test and observe a variety of swimmers and select a minimal velocity and a minimal distance commensurate with your expectations. At Beloit College, a student must attain a minimum velocity of 2.0 and a minimum distance score of 23 feet to pass this test. These norms are based on a sampling of over 500 students. If used for classification, a specific velocity and distance standard will have to be selected for each level. Twenty or more students can be tested in 10 minutes on one glide stroke. A quick way of determining velocity is to plot the distance and time scores on a simple graph. (Additional information may be obtained from the author.)

Nonglide Strokes

The nonglide stroke, consisting of continuous propulsion, eliminates the importance of a distance measure, per se. Measuring efficiency is accomplished by a kind of "horsepower" rating, that is, swimming "all out" with maximum power and speed while the distance and time are recorded.

Administration of the Nonglide Stroke Test

This test is administered the same as the glide stroke test except that velocity is the only criterion. The swimmer is told to swim her fastest, most powerful crawl stroke the length of the pool. Measurements of distance and time are recorded in the same manner as the preceding test, for five complete arm cycles, with markers placed in line with the swimmer's head. A minimal velocity determines exemption or classification. At Beloit College a minimum velocity of 3.2 must be attained to pass this test. It is important to motivate the swimmer to swim as fast and as powerfully as possible and to take full arm strokes. (Reliability, within day=.94, between days=.95)[2]

Efficiency Endurance Test

The two preceding tests measure the efficiency or power of a specific stroke for a short distance. This test, however, measures efficiency of propulsion through the water in a larger sense and in some cases includes the measure of endurance. It involves swimming a specified distance in a specified amount of time. In this test one lane is assigned to each swimmer who stands in the shallow water against the end of the pool. Each swimmer has a partner who counts and informs the swimmer of the number of lengths completed. The swimmer may push off from the ends, may stop and rest at any time but may not walk at any time. At Beloit College, swimmers must travel 5 lengths of a 25-yard pool or swim for 3 minutes, whichever occurs first, using any combination of strokes desired. Passing is finishing the 5 lengths within 3 minutes. Emphasis is placed on swimming efficiently, rather than speeding and becoming exhausted. Students are told that if they swim one length each half minute, which is a moderate, even, relaxed, non-racing quality, they will finish with half a minute to spare.

The test administrator starts all swimmers at once, one swimmer per lane and announces each half minute. As a swimmer reaches the end of the fifth length, the test administrator gives the time to the swimmer's partner who reports it to the recorder. Swimmers who do not complete the five lengths are stopped at the end of three

[2] *Ibid*

minutes and the distance covered is recorded to the nearest tenth of a length. Of course, any distance and time limit may be selected depending upon the discrimination power you wish the test to have. It is very important to inform students that this is not a race, that instead they should conserve energy and swim an even, relaxed pace, changing strokes as necessary or desired. With Beloit's standard of passing, it is a rare swimmer who can pass the test without at least some use of a nonglide stroke. (Reliability: between days=.88).[3]

The efficient swimmer will move through the water with the least amount of resistance (horizontal body, etc.) and with force applied in as nearly a backward direction as possible. (This kind of swimmer will either complete the test in a much shorter time than demanded or complete it with little or no fatigue, or both.) The inefficient swimmer will probably apply force poorly (pressing down, etc.) and create more resistance through the water with a high head and low legs. This swimmer will expend a great deal more energy than necessary and, therefore, in all likelihood will not pass.

These measures of swimming efficiency quickly and objectively reveal most of the same qualities as those of a subjective rating with one exception being that they do not measure style or form. It is highly questionable to this author whether a particular style is relevant to skill in swimming when efficiency is demonstrated.

[3] *Ibid.*

Being "Safety-Wise" In Aquatic Sports

LINDA KENT VAUGHAN

Miss Vaughan received her B.S. and M.A. degrees from Russell Sage College. She was formerly employed as an assistant professor of physical education at Wellesley College and is now currently engaged in completing research for a doctoral dissertation at the Ohio State University, Columbus.

A close look at all the inland lakes, reservoirs, rivers, coastal waters, and public and private pools shows that aquatics is a thriving business. However, with the increase in swimming, boating and related activities, there is also an alarming increase in accidental deaths associated with these sports. In many cases poor judgment, carelessness and the lack of a basic knowledge of emergency procedures in aquatic sports contribute to tragic situations.

There are many times when people find themselves in social situations involving participation in an activity and use of equipment with which they are unfamiliar. In the case of boating, for example, these people must rely on their host for basic information to safely enjoy their outing. Also, they are dependent upon the host to observe established safety rules and to be knowledgeable and skillful in handling the craft. However, during an emergency even the best skipper may "lose his head" and be unable to advise others. An understanding of basic safety rules and procedures for aquatic emergencies is vitally important to the welfare and safety of all those involved, whether they are spectators or participants. Much of the knowledge is common sense, but, as past experience has shown, rational thought often appears to fail in a moment of panic.

A course in aquatic safety could cut across the lines of a variety of aquatic sports and highlight basic concepts and experiences with which people should be familiar. The content might include the safety aspects of swimming, skin and scuba diving, canoeing, sailing, row boating, and motor boating. Interested students would have to be able to swim comfortably in deep water and while a knowledge of small craft would be helpful, it would not necessarily be a prerequisite. The purpose of the course would be to acquaint the student with the basic knowledge of safety aspects of a variety of aquatic situations. Throughout the lessons students should be made aware of the legal aspects of aquatic sports such as required life preservers, observers in boats towing water skiers, and buoy and channel markers. Since laws vary in different states, legal matters included in a course must be based on local laws. The importance of weather, the

observance of forecasts, and procedures in hazardous weather should be stressed in relation to each aquatic sport.

The swimming portion of a course in aquatic safety might include drownproofing, survival swimming, techniques in which various articles of clothing are used as life preservers, disrobing procedures, use of United States Coast Guard approved life preservers and cushions, elementary rescue methods and mouth-to-mouth resuscitation. In the skin and scuba lessons a certified instructor should present the safety factors related to diving. For canoeing, sailing, and rowboating, safety aspects could include self-rescue, capsize procedures, and rescue of others. In motor boating, basic equipment regulations, safe engine operation, rescue techniques for self and others, plus pertinent safety procedures associated with water skiing should be taught.

This content outline could be covered in approximately 24 hours of instruction. Because of the time involved in the preparation and use of equipment, classes of two or three hour sessions would be more effective than one hour sessions. The course in aquatic safety procedures could be taught in a pool, a lake, or any available facility. An ideal situation would be a lake with a variety of small craft. Of prime importance is the provision of as much practical experience as possible. If facilities are limited to a pool the lessons might be supplemented by an outing to a nearby lake or river where practical applications could be made of material which was taught in the pool. Some boat owners might volunteer their craft and time or a marina might adjust its rental rates to accommodate a class.

A course exposing a student to this line of thought and experience in simulated situations could contribute to the education of greater numbers of people so that they would be safety-wise in aquatic sports. No matter what their skill level might be in a particular sport, these people could be of more value in emergency situations because they would be better able to care for themselves and others. Also, safety conscious individuals would be less prone to becoming involved in potentially hazardous situations. For an increasingly active public in boating activities, a course in aquatic safety could facilitate the prevention of aquatic accidents.

A Basic Skin Diving Unit

BOBBI HOUGHTON
BILLIE POSTON

Miss Houghton received her B.A. degree from Fresno State College, Fresno, California and her M.S. from the University of California at Los Angeles. She is currently employed by the University of California at Santa Barbara as a junior supervisor of physical activities specializing in aquatics. She has been an active skin diving teacher for the L.A. County Department of Parks and Recreation skin diving program.
Miss Poston received her B.S. and M.S. degrees from the University of Tennessee, Knoxville. She is employed as an assistant professor of physical education with a specialization in aquatics at Fresno State College. She has directed the waterfront program at various Girl Scout camps for the past 15 years and is currently associated with the Los Angeles Council Girl Scouts, Catalina Island, California.

A skin diving unit can be a welcome addition to the present aquatics program. The acquisition of safe skin diving skills can introduce the qualified student to the fascination and enchantment of the underwater world and offer a unique experience which is rivaled by few activities in the realm of physical education.

Prerequisites

I. Health Requirements
   A. Skin diving demands that a person be in good physical condition. Check the student's professional health record for clearance. The following should be checked: ears; Eustachian tubes, nose and throat; respiratory system; circulatory system; and the nervous system.
   B. Skin diving requires a person to think rationally in a stress situation. There should be no evidence that a student has unusual phobias, is emotionally unstable, or cannot adjust to a new situation.

II. Swimming Requirements
   No swimming aids should be used to complete the swimming requirements. The ability to pass the following test without undue stress should aid the instructor in an evaluation of the swimming readiness of each student. A recommended minimal test would contain:
   A. 220 yard swim using any stroke
   B. 50 feet underwater swim

C 5 minute supine float
D. 3-5 minute tread using arms and legs
E. Towing of an inert swimmer 25 yards with any carry

III. Optional Requirements
The instructor may feel that other requirements are necessary to insure that a student is ready to take a skin diving class. Some optional requirements that may be considered are:
A. The completion of a standard or advanced first aid course
B. The completion of a senior lifesaving course

Basic Skin Diving Unit

A suggested course content for a basic skin diving course would include the following topics.

I. Lectures and Classroom Discussion
A. History
1. The sport of skin diving
2. Equipment, progress, and innovations
B. Equipment. The instructor should explain the purpose, construction, types, and considerations for personal selection and care of each piece of equipment.
1. Required equipment
a. mask
b. snorkel
c. fins
d. safety vest
e. weight belt
f. float with attached diver down flag
2. Optional equipment
a. exposure suit, hood, gloves
b. knife and sheath
c. fishing license
d. depth gauge
e. compass
f. "goody" bag
C. Physiology of skin diving. The physiology of skin diving should be studied carefully so the diver can better understand her limitations. Special attention should be given the following aspects of physiology:
1. Effects of pressure on the body
2. Shallow water blackout
a. breath holding
b. hyperventilation
3. Effects of cold water
4. Effects of strenuous activity
5. Effects of diuretic fluids
D. Safety. *Safety should be emphasized* and practiced in every skin diving lesson. The potential skin diver must know and demonstrate the following:
1. Rules for skin diving
2. Lifesaving techniques

3. First aid techniques
4. Underwater communications

E. Environment. The skin diver should know well the environment in which she is to dive. This knowledge will assist the novice in appreciating the new medium which awaits her. The following environmental items should be covered
1. Sea life
a. animal life
b. plant life
2. Physical condition of the area
a. water condition
b. tides and currents
c. topography of the surrounding land

II. Water Sessions

A. A progression for the use of a mask
1. Fit and strap adjustment
2. Defogging – two ways that a mask may be defogged:
a. saliva
b. commercial preparations
3. Swim on surface while wearing mask
4. Equalization of the underwater pressure in the ears and sinuses by:
a. yawning method
b. pressing on the face plate while blowing gently through the nose
c. pressing upward on the lower skirt of mask while gently blowing through the nose
d. pinching the nostrils while gently blowing through the nose (if this type of mask is available)
5. Equalization of mask pressure on the face
6. A mask clearing progression. (The mask clearing should begin in shallow water then move to deep water when the students have achieved perfection in each step of the progression. *Remember to emphasize* the equalization of the ears as a diver begins descent.)
a. the diver should: submerge in upright position, lift the skirt of the mask, flooding the mask; stand, lift skirt of mask and allow the water to flow out.
b. the diver should: submerge in upright position, flood mask, clear mask using *looking up* method, then stand.
c. the diver should: submerge in horizontal position, flood mask, clear mask using *looking around* method, then stand.

d. The diver should learn to *doff and don* mask. The diver should throw the mask into the water, swim to it, put the mask on, clear it, and then stand up.

7. Surface dives. (Remember to emphasize equalization each time the student learns a new surface dive.) The instructor should teach the following dives: pike, tuck, and feet first or kelp dive.
8. Resurfacing. Emphasize looking up, reaching up, listening, and revolving 360 degrees to increase visibility.

B. Snorkel
1. Fit and comfort of the mouthpiece
2. Breathing through the snorkel. When the student is learning to breathe through the snorkel, she should be able to stand in shallow water and hold the snorkel in position with one hand. A progression for learning to breathe through the snorkel is to.
   a. stand on bottom with the face out of the water
   b. submerge to mouth level
   c. submerge to the cheek bone level
   d. submerge to the top of the head
3. Attach the snorkel to the mask strap with a snorkel tab.
4. The swimmer should swim on the surface while wearing the mask and snorkel until they are comfortable in the water.
5. Snorkel clearing is one of the hardest skills for the beginner to learn. Two methods for clearing the snorkel are:
   a. the standard method of clearing the snorkel: the student "gusts" the water from the snorkel after returning to the surface.
   b. the ascent method is the newest and easiest method of clearing the snorkel. Ascent clearing is performed by:
      1.)looking up, listening, reaching up, and revolving 360 degrees.
      2.)approximately 3 feet from the surface the swimmer *in the looking up position,* should begin to exhale through the snorkel. (The *looking up* position places the open end of the snorkel in an inverted position and allows it to empty easily.)
      3.)when the swimmer surfaces the snorkel is empty of water and ready for inhalation.
6. Practice all skills listed in sections A & B while wearing mask and snorkel.

C. Fins. The following skills should be practiced while wearing fins:
1. Fit
2. Walking

3 Entries to pool (ladder) and the beach
4. Kicks: flutter kick (back and front), dolphin, bicycle and scissors (on the side and front)
5. Practice all skills listed in A, B, and C wearing mask, snorkel, and fins

D. Safety vest
1. Fit
2. Inflation
3. The student should learn to swim with an inflated and a deflated vest.
4. Practice all skills listed in A, B, C, and D wearing mask, snorkel, fins, and safety vest.

E. Weight belt. The improper use of a weight belt has caused many accidents. The essential skills using a weight belt are as follows:
1. Proper weighting needed for each individual
2. Placement of the weight belt on the body
3. Dropping the weight belt
4. Practice of all skills listed in A, B, C, D, and E wearing mask, snorkel, fins and the weight belt to offset the bouyancy of an inflated safety vest.

F. New skills to be learned wearing mask, snorkel, fins
1. Entries
a. giant stride
b. forward roll
c. back roll
d. seat drop
e. front jump

G. Games can be a useful teaching technique if practice is appropriate.

III. Tests
A. Written test-comprehensive coverage of all course material
B. Practical-competency
1. Skills using individual pieces of equipment
2. Skills using all basic equipment

IV. Related Information
A. Future activities for the skin diver
1. Enrollment in a certified skin and scuba diving course
2. Sport diving
3. Shell collecting
4. Photography
5. Professional pursuits: marine biology, oceanography, ecology, and research

B. Implications for the teacher considering beginning a skin diving unit
1. Enrollment in a certified basic or advanced skin and scuba diving course

2. Reviewing of first aid skills, especially those procedures relating to injuries and accidents around the water
3. Study of oceanographic materials
4. Problems relating to equipment availability
   a. have students bring their own equipment.
   b. students rent equipment if they do not own their own.
   c. contact manufacturers and dive shop owners for equipment which is being phased out (you may be able to renovate it).

C. References and selected reading
1. Contact the agencies involved with certifying divers.
2. Contact manufacturers of equipment for free material regarding equipment.
3. Books
   a. Bascom, W. *Waves and Beaches.* New York: Doubleday Publishing Co., 1964.
   b. Conference for National Cooperation in Aquatics. *The New Science of Skin and Scuba Diving.* New York. Association Press. 1968.
   c. Cousteau, Jacques. *The Living Sea.* New York: Harper & Row Publishing Co., 1963.
   d. Dixon, Peter. *The Silent World The Complete Book of Scuba Diving.* New York: Ballantine Books, 1968.
   e. Dugan, James. *The World Beneath the Sea.* Washington, D.C.: National Geographic Society, 1967.
   f. Harper, Donald. *Skin and Scuba Diving Fundamentals.* Columbus Ohio: Merrill Publishing Co., 1968.
   g. Tillman, Al. *Skin and Scuba Diving.* Dubuque, Iowa: W.C. Brown Publishing Co., 1966.
4. Magazines and periodicals
   a. *Sea Frontiers,* International Oceanographic Foundation, 10 Rickenbacker Causeway, Virginia Keys, Fla.
   b. *Underwater News,* P.O. Box "J", Huntington Beach, Calif. 02648.
   c. *Underwater News,* L.A. County Department of Parks and Recreation, Underwater Unit, 155 W. Washington Blvd., L.A., Calif. 90015.
5. Films
   a. Skin & Scuba Diving Supply Co. (i.e., U.S. Divers Co.). 3323 W. Warner Ave., Santa Ana Calif.
   b. Midwest Sports Distributing, Box 509 Riverdale Station, Dayton, Ohio. U.S. Navy Deep Sea Diving and Medical Physiology.
   c. _____, Training Film of the U.S. Navy Frogmen.

Beginning Water Polo Skills

ARTHUR MINDHEIM

Mr. Mindheim is an assistant professor, department of physical education for men in the school of Health, Physical Education, and Recreation at Indiana University, Bloomington. He received his B.S. degree from Washington State University, Pullman and his M.A. degree from the University of Iowa, Iowa City. His teaching experiences include instructional swimming, water polo, and skin and scuba diving. He coaches the polo team and advises the skin and scuba diving club at Indiana University.

Modern water polo is no longer the "dangerous" game many remember from the 1920's and 1930's. Today's game is one of skill and strategy, not a game of water wrestling. Certainly it is best that any individual who wishes to take up water polo be a strong, though not necessarily fast, swimmer. Water polo is a sport in which fast swimmers can enjoy themselves in the water by learning a new skill. Slower swimmers can enjoy themselves because skill in ball handling and game strategy play as great a part as does fast swimming.

A few basic skills must be developed if any competency is to be gained while playing water polo. These include the following:

Egg beater kick. The kick is basically the same as the whip kick used while swimming the breast stroke. The big difference is that only one leg is kicked at a time in an alternating pattern. This gives a continuous power kick, with no letup during recovery as is present when swimming the breast stroke.

Lifting the ball. Beginners at water polo will find it frustrating when they first attempt to get the ball out of and up from the water. Basically, there are two methods. First, come up slowly from beneath the ball with fingers spread and lift it from the water. Second, dunk the ball and as it recovers and rises from the water, roll the hand underneath.

Throwing. It is best to teach throwing first as a dry land exercise. Throwing the ball in the water is not much different from throwing it on land. When throwing the ball in the water, the player must lead with the opposite shoulder, and use the egg beater kick and the free hand to help lift the body out of the water.

Catching. There is both dry and wet catching (from a dry or wet pass). The wet catch is a trap with the ball between the hand and the water. The dry catch is a catch without getting the ball wet. The one important point to remember is to keep the fingers pointing upward.

Many girls attempt to catch the ball with the palm up and the fingers pointing towards the thrower. The palm must face the thrower, the fingers should point upward and be spread. The hand must "give" when the ball reaches it so it will not bounce off.

Dribbling. This is merely swimming while the ball is moving on top of the water and in front of the body. The ball is basically propelled by riding a wave in front of one's chest. With the head up, the hips will be forced down. This results in the need for a strong flutter kick. The head, face, and nose may be used to help steer the ball, but the upper arm should not be used.

From here a few secondary skills can be developed such as proper body positions (never be caught vertical in the water), guarding, goaltending, and push passes. Any passing skill is also a shooting skill.

With a minimum of basic skills in ball handling, game situations can be developed. There should be no attempt to separate water polo (because of its unique environment) from other game strategies such as field hockey, soccer, or basketball. With an understanding of the fast break, two-on-three, ball side-side break, and angle on the goal, a game will soon develop.

Additional skills include the following shots: layout, lob, push, slap, backhand, turn around, tip, and the sidearm shot. For a good game situation, guarding skills and knowhow must develop as well as man-to-man defense (best and most often used), switching, zone defense, and tackling.

The most important member of a good, well-balanced team is the goaltender. She is often the water polo quarterback. Goaltender is probably the most difficult position to play. The goaly must be strong and have good leg action and possess good lateral as well as vertical mobility. In addition, quick reflexes and hand-eye coordination are necessary.

If water polo is to be played with any degree of seriousness, a great deal of work must be done on skills and conditioning. Here is an idea of the type of work that can be accomplished in 30-45 minute swimming sessions that might precede the actual water polo work:

1. swim 1 mile
2. swim 1/4 mile: kick 200, pull 200, swim 2 x 100, swim 2 x 50
3. swim 25 minutes continuously:
   pull 2 x 100
   kick 2 x 100
   swim 1 x 100

4. swim 1/4 mile (every other length hard):
   pull 400
   swim 200
   swim 4 x 5(
5. swim 2 x 200
   kick 2 x 200
   kick 4 x 50
   pull 2 x 200
   pull 4 x 50
   swim 4 x 25
6. swim 2 x 200
   pull 2 x 200
   kick 5 x 50 or 2 min.
   swim 8 x 1 or 1 min.
7. 1/2 mile kick, pull, swim
   TIME: 1/2 mile, 4 x 25 [illegible] erate to hard
8. swim 200
   kick 1/4 mile
   pull 1/4 mile
   swim 30 x 25
9. warm up 1/4 mile
   kick 200
   pull 200
   swim 4 x 50
   swim 8 x 25
10. warm-up 2 x 200
    pull 2 x 100
    swim 2 x 50
    swim 1 x 50
    swim 1 x 25
11. warm-up 400 IM
    swim 200
    swim 100
    kick 10 x 25
    pull 10 x 25
    swim 4 x 25
12. warm-up 2 x 200 IM
    kick 200
    pull 2 x 100
    swim 2 x 100
    4 x 50
    4 x 25

Swimming Technique. 12618 Killion St., North Hollywood, Calif. 91607. Published quarterly. $3.50 per year (outside U.S.A., $4.50). Official publication of the American Swimming Coaches Association. A technical journal containing articles on swimming, diving, water polo, nutrition, and physiology.

Swimming World and Junior Swimmer. (See *Swimming Technique*). Published monthly. $6.00 per year (outside U.S.A., $7.00). Articles on technique and training, plus results of leading swimming meets in high schools, prep schools, colleges, and open AAU meets, men and women.

Synchro-Info. 11902 Red Hill Ave., Santa Ana, Calif. 92705. Published bimonthly. $3.00 per year. Includes articles on technique and results of various synchronized swimming competi-

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1. HINES, CHARLES. *How to Play and Teach Water Polo.* New York: Association Press, 1967.
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Progressions in Teaching Beginning Synchronized Swimming Stunts

THERESA W. ANDERSON

Mrs. Anderson received her M.A. degree from Columbia University, New York. She served as director of physical education at North High School, Des Moines, Iowa for 25 years. Mrs. Anderson is past chairman of the AAU Synchronized Swimming Committee, a member of the United States Olympic Synchronized Swimming Committee, and a member of the Helms Hall of Fame.

Basic fundamental skills are as important in synchronized swimming as they are in tennis, golf, diving, or in any other activity. Without them, one will not progress very far. Too many students want to work on difficult stunts without proper knowledge of basic skills and basic stunts.

Through learning to execute the simple basic stunts correctly, the student should acquire to some degree, efficient body movement, neuromuscular coordination, rhythm, control, and a kinesthetic sense of balance and body alignment. She may then logically progress to the more difficult stunts, and will have the satisfaction of knowing that what she does, she does well.

Breath Control

This is one of the first skills to be acquired in order to avoid sinus and inner ear trouble, and to ensure relaxation under water. Rhythmic bobbing in deep water is an excellent exercise for this.

Synchronized swimmers should not allow air to escape during the execution of a stunt. There should be just enough pressure in the post nasal area to prevent water entering the nose. This may be practiced by remaining under water for ten or fifteen seconds.

Sculling

Sculling is the most important single skill in synchronized swimming and *must* be learned, and learned well

Basic Stunts

Many of the techniques used in these stunts are component parts of the more advanced stunts.

Somersault, back tuck. Check for compactness of the tuck and efficient hand and arm action.

Somersault, back pike. Check for tightness of the pike, efficient hand and arm action, proper elevation of the body in relation to the surface of the water, smooth and continuous movement.

Somersault, front pike. Check to see that feet, legs and buttocks travel along the surface of the water as the body assumes the 90 degree pike position. Check for efficient hand and arm action.

Ballet leg, single. Check the vertical line and height of the ballet leg, and line of the horizontal leg extended on the surface of the water.

Somer-sub. This stunt is a combination of two skills already learned (front pike somersault and ballet leg). Check for smooth transitions within the stunt and even timing. Also check for jerkiness and sectioning.

Porpoise. Check for correct 90 degree forward pike, elevation of body as legs are extended upward, and for the vertical line on descent.

Kip. This stunt is a combination of two previously learned skills (back tuck somersault and vertical position of the porpoise). Check for tight tuck, even timing, elevation of the body as the legs are extended vertically, and vertical line on the descent.

Dolphin. Check for proper movement of the body backward before submerging the face; smooth, even timing; and head, hips and heels on circumference of the circle which has a diameter of about eight feet.

If the basic fundamentals are learned, the student is well equipped to progress to the difficult stunts.

General Guidelines

From the very beginning, while the student is learning the simple stunts, the following points which pertain to all stunts should be given special attention: Is the body fully extended, or is it too relaxed and loose?

In the vertical position is the body held in proper alignment with the head, hips, and ankles in line, and perpendicular to the surface of the water, or is the head held too far back or forward, back arched, or piked, or legs swaying backward out of line?

In the horizontal position, is the body held in proper alignment, or is the head forward, body piked and hips low?

In the circles, does the body follow the circumference of a circle which has a diameter of about eight feet or are the head, hips or feet off the path, or does the body follow the oval line of an egg?

Is the movement controlled, with smooth transitions within the stunt, or is it frantic and sectioned, lacking even timing?

Are tucks and back pikes compact, or are they loose?

Is the forward pike position always held at a 90 degree angle, or does the angle lessen?

Is proper elevation maintained during execution of the stunt, or does the body drop low in the water? Is the sculling weak?

Does the execution look effortless, or is it a jerky struggle?

So You're In Charge of an Aquacade!*

BARBARA J. HELLER

Barbara J. Heller is with the department of physical education, University of California at Davis. She has been adviser to the Aquacade at the University of California for 10 years. She has been adviser to synchronized swimming clubs at Ohio State University, Sam Houston State University, and Stephen's Episcopal School in Austin, Texas.

The synchronized swimming production, Aquacade, or water show is usually the primary objective of a swimming club or the climax of a synchronized swimming class. Producing a swimming show may be a grand-scale undertaking with costumes, lights, decorations, and unusual effects, or merely the combining of a few simple compositions into a presentable program. There are guides and rules which should be followed in any type of production, simple or complex, which can help make a well-balanced and appealing program.

Length of the Program

A quick rule of thumb is to limit the length of the program to not over an hour. From a swimmer's point of view this is sufficiently long, especially when costume changes are involved and the participants may be swimming in two or three compositions. Musical recordings are usually of two to three minutes duration; allowing time for transition from one composition to another, usually a minute or two before and after, each composition will consume four to seven minutes. A sixty-minute program will, therefore, allow for six to eight routines and an intermission.

The audience has a great deal to do with the time allotted. Many of the pools and natatoriums suitable for use by spectators are hot and humid and have wooden benches, stone steps, or some other type of uncomfortable seating arrangement. It is wise to consider the physical comfort of the spectators; the program should be kept brief if the facilities are likely to become disturbing.

Audience Appeal

Most audiences include both adults and children; compositions should be written with this in mind. For example, there are those

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who will enjoy comedy routines. Others may be familiar with synchronized swimming, and enjoy the more intricate patterns and difficult movement skills. Since this may be the first experience some spectators have with water ballets, interesting, simple, and well-executed compositions are necessary to elicit their approval. In addition, the number of swimmers in each number should be varied in order to demonstrate many types of synchronized movement. The entire production should have variety of tempo and rhythm.

Rehearsals

A formal production is a major undertaking, requiring about two months of semiweekly practices. In the week prior to the presentation several rehearsals should be scheduled. During this last week at least one rehearsal should include costumes, lighting effects, decorations, and make-up so that any change which may be necessary can be arranged, and there will be as few last minute crises as possible.

Costumes

Costuming tends to glamorize compositions and remove them from the realm of basic swimming suit design. The fact that the major part of every routine takes place in the water puts limitations upon the kinds of materials that may be used. Costumes should be simple and brief, since any material which is not waterproof may become heavy and cumbersome and will tend to cling to the body when immersed, inhibiting the natural movement of the swimmers. Waterproof material which does not permit the escape of air bubbles may result in ballooning and spoil the desired effect.

A basic swimming suit is recommended for use beneath all costumes. Sequins, oil cloth, and plastic material may be sewed on these basic suits in colorful and appropriate patterns. Although waterproof glue may be used effectively to hold sequins and other materials to the swimming suits and caps, the glue may harm them and is difficult to remove, so on most occasions a basting stitch is more efficient.

Material fashioned as aprons, blouses, skirts, or shorts used over basic suits permits freedom of movement and still emphasizes colorful costuming. A straight strip of material may be worn around the neck as a shawl or stole and belted at the waist. The main idea in the use of costumes is to enrich the entire composition by the use of colorful and appropriate attire.

Gloves, shoes, stockings or any other covering for the arms, feet, legs, and hands should be fastened securely, since the weight of the water may pull off such types of covering. Gloves and stockings should be of porous material to permit the escape of water, since added weight tends to inhibit arm and leg movements.

The different kinds of spot and floodlights with colored gelatins and wooden frames are expensive. Many departments of speech and theater arts have lighting equipment which may be borrowed or rented for use in swimming production if the equipment is not otherwise available. A simple but effective lighting procedure is to have four floodlights placed in the four corners of the pool deck so that there are as few dead or shadow areas as possible. A spotlight with a

EXAMINATIONS AND RATINGS COMMITTEE

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Associate: HELEN TIMMERMANS, Univ. of South Carolina, Columbia, S.C. 29208

Softball: LORENE RAMSEY, Illinois Central College, Dirksen Hall, East Peoria 61611

Swimming: CAROL COOPER, Southern Illinois Univ., Carbondale 62901

Synchronized Swimming Co-chairmen: THERESA C. ANDERSON, 2109 Fortieth St., Des Moines, Iowa 50310, and JANET MOLDENHAUER, Wisconsin State Univ., Oshkosh, Wisconsin 54901

Tennis: CURLY NEAL, Stanford Univ., Stanford, Calif. 94305

Track and Field: KATHRYN RUSSELL, Univ. of Arizona, Tucson 85721

Volleyball. NANCY STUBBS, Univ. of Tennessee, Knoxville 37916

Associate: NANCY LAY, Univ. of Tennessee, Knoxville 37916

SWIMMING EXAMINATIONS AND RATINGS COMMITTEE

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JEAN CHESHIRE, Lincoln High School, Portland, Ore. 97200

color wheel may be used to pick out and point up the swimmers. Care should be used in the placement of a spotlight so that at no time the light moves from the surface of the pool into the audience. If possible, placement of the spotlight equipment above and behind the audience is preferred.

Some pools have underwater lights which provide an excellent type of illumination. These lights bring out underwater skills such as waterwheels, turns, spirals, rolls, dolphins, and others far better than overhead or deck lights.

Black lights have been successfully used to create novel and eerie effects. Special materials must be used for costumes, all or a major portion of the swimmer's body should be covered in order to reflect as much of the light as possible. This type of material is expensive, and compositions with several swimmers needing costumes soon become prohibitive if money is an important factor. Black lights are expensive to buy or rent, and a professional lighting technician is needed to determine the area of the pool, the candlepower of the lights, and the number needed to ensure adequate illumination. The fluorescent shimmer of the material and light is not advisable for a long period of time, for those who are watching may become quite conscious of eyestrain and queasiness. Overuse of black light will nullify its shock value and effects.

Decorations

Decorations in and around the pool area should complement the theme of the production. A swimming show based upon the idea of seasons of the year may utilize a large calendar with colorful pictures painted around each month. One of the swimmers in each composition may tear off a page of the calendar to signify a change in time and the appearance of the next number. The theme of foreign countries might be pointed up by the use of travel posters and the flags of the nations which are to be portrayed.

Decorations should be waterproof, since splashes and spots may smear pictures and cause paints and colors to run and streak. They should be placed where they do not interfere with the view of the pool and the swimmers. Decorations are used primarily to augment the total effect of the production in the same manner as lights, costumes and make-up, and should be kept simple and in good taste. Potted flowers, plants, and small shrubs are good for decorative purposes.

Programs

Printed or mimeographed programs should be distributed to the audience before a swimming production and should portray the

theme of the show. The programs should list all the compositions in their correct order, including the names of the performing swimmers, those who are responsible for intermission entertainment, and all necessary credits for lights, costumes, decorations, and make-up.

Intermission

Synchronized swimming is a strenuous activity and an intermission period during the production permits a rest period for the participants in which they may regroup expended energy. An intermission period of ten to 20 minutes should be included.

There are two types of intermissions: entertainment and non-entertainment. As a general rule, the latter type should be avoided, since you may lose some of your audience and it may be difficult to re-establish a swimmer-audience rapport when the show resumes.

The entertainment type of intermission period should center around some form of activity which supports the theme or idea of the total production. Diving exhibitions may be used since they provide a respite from the synchronized compositions, yet emphasize the aquatic make-up of the production. Speed swimming events can point up the differences and similarities between the two types of swimming. A few races or relays utilizing the standard racing strokes can show the necessity for speed and bring out the competitive aspects of this type of swimming.

Some form of dance, such as modern or folk, may serve as appropriate entertainment when adequate space is available. Dancing may enhance the total production through use of a similar theme or music with this different medium of movement.

The majority of compositions should be presented before the intermission; once the swimming is resumed there should be no time for anticlimax. The entire performance should culminate in a grand finale or final composition designed to serve as the peak of the program. A swimming show that has a variety of movement, colorful costumes, lighting, interesting music, and skillful swimmers is a stimulating and enjoyable occasion. The rewards for the work and energy involved are inherent in the production itself.

Selected Aquatics References

MARY E. KAZLUSKY
Mount Holyoke College
South Hadley, Massachusetts

The following list includes aquatic literature from 1968 to date. For earlier publications and a more complete bibliography, refer to *Swimming and Diving — a Bibliography* by Fern Yates.

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Swimming Pool Weekly and Swimming Pool Age. (See *Swimming Pool Data and Reference Annual*). Published 37 times per year (includes the *Data and Reference Annual*). $8.00 per year. Each issue contains interesting and helpful material on aquatics, particularly in the Features Section.

Championship Swimming: Perfecting Technique, 20 min. 16mm/sound/color. Rental $12.50. Shows methods employed by George Haines to train swimmers. (7)

Championship Swimming: Preparing for Competition, 20 min. 16mm/sound/color. Rental $12.50. How George Haines directs and coaches champion swimmers. (7)

Fun 'N Fathoms, 27 min. 16mm/sound/color. Free rental. Stresses safety points in scuba diving. (5)

Learning to Swim, Super 8 cartridges. Set of three for $74.95, or $24.95 each. Based on the program for beginning swimmers developed by Dr. James Counsilman. (2)

Pulse of Life, 27 min. 16mm/sound/color. Also, 16 min. 16mm/sound/color and super 8mm/sound/color. Rental $10.00. Demonstrates mouth to mouth respiration and external heart compression. (6)

Survival Swimming, 14 min. 16mm/sound/BW. Rental $9.00. Demonstrates methods of individual survival in the water. (3).

Swimming, Super 8 cartridges. Set of eight for $199.60, or $24.95 each. Dr. James Counsilman's famous approach described in *Science of Swimming* available on film. (2)

The Swimming Series, 8mm/color loops in cartridges. 14 films for $180.00, or $15.00 each. Covers starts, turns, and techniques for all the competitive strokes. (7)

You Are the Lifeguard, 10 min. 16mm/sound/color. Free rental. Stresses the importance of proper training for swimmers and demonstrates rescue methods. (5)

Film Distributors:

1. Athletic Institute, Room 805, Merchandise Mart, Chicago, Ill. 60654.
2. Ealing Films, 2225 Massachusetts Ave., Cambridge, Mass. 02140.
3. International Film Bureau, 332 S. Michigan Ave., Chicago, Ill. 60604.
4. National Association of Engine and Boat Manufacturers, 420 Lexington Ave., New York, N.Y. 10017.
5. Public Relations and Advertising Department, Aetna Life and Casualty, 151 Farmington Avenue, Hartford, Connecticut 06115.
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AQUATICS GUIDES

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Officiating Services Area

OSA (Officiating Services Area)–This area, one of seven in the DGWS structure, is devoted to the training and rating of officials. Its Executive Board, which meets annually prior to the AAHPER national convention, is composed of.

1) A *chairman*, a *chairman-elect*, and a *past chairman*. The chairman-elect is elected in an open meeting at the national convention.
2) A *secretary*, who sends rating cards to boards and receives applications for new boards. She is elected by mail ballot in alternate years by the local boards of officials.
3) A *treasurer* who is responsible for collecting board dues. She also is elected by mail ballot in alternate years by the local boards of officials.

P & T of O (Principles and Techniques of Officiating)–This committee is concerned with the methods used by referees, umpires, and judges to officiate games and matches. The P & T of O chairman is a member of and is selected by the Executive Board. A subcommittee in each sport is responsible for evaluating and revising the officiating techniques and for writing the Techniques of Officiating article published in its respective sports guide. Membership is by appointment. If you have questions concerning the techniques of officiating, write to the appropriate P & T of O chairman.

E & R (Examinations and Ratings)–There is an E & R committee for each of the nine sports in which ratings are given. Each chairman and her committee are responsible for preparing, revising, and analyzing the officiating theoretical examinations. The general chairman and an associate chairman (who is the E & R chairman-elect) coordinate the subcommittees and compile the general material for the sports packets. The chairman of E & R is an appointed members of the OSA Executive Board. If you need information regarding the study questions in the Guides or a question in the examination, write to the appropriate E & R chairman.

E & P (Editorial and Publications)–This committee is responsible for editing the OSA portion of the Guides. The chairman is appointed for a two-year term of office and is a member of the Executive Board.

DOC (District Officiating Coordinator) - There is one DOC in each of the six districts of AAHPER. She serves as liaison between the boards of officials in her district and the OSA Executive Board. The DOC is elected at her AAHPER district convention and serves on the Executive Board.

Boards (Affiliated and Provisional Boards of Women Officials) - These boards are made up of organized groups of women throughout the United States who are authorized to give ratings. A listing of these boards follows

Officiating Executive Board
1971-1972

Chairman: CHARLOTTE WEST, Southern Illinois Univ., Carbondale, Ill. 62901 (1971-72)

Past Chairman: MARY W. FORD, Winthrop College, Rock Hill, S.C. 29730 (1970-71)

Chairma elect. ELSIE J. COBB, North Texas State University, Denton, Texas 76201 (1972-73)

Secretary: LAURIE MABRY, Illinois State Univ., Normal, Ill. 61761 (1970-72)

Treasurer: JEANNE ROWLANDS, 215 Elsinore St., Concord, Mass. 01742 (1969-73)

Chairmen of Standing Committees

Principles and Techniques of Officiating: PAT SENI, Pennsylvania State Univ., University Park, Pa. 16802 (1970-72)
Elect: PATRICIA DUNCAN, Ft. Hayes State College, Ft. Hayes, Kans. 67601 (1972-74)

Examinations and Ratings: ELEANOR SANDERSON, Southern Connecticut State College, New Haven, Conn. 06515 (1971-72)
Associate Chairman: CAROL SWIM, Bemidji State College, Bemidji, Minn. 56601 (1972-73)

Editorial and Publications: MARY BELL, Northern Illinois Univ., DeKalb, Ill. 60115 (1971-73)

District Officiating Coordinators

Central: JUDY CLARKE, Univ. of Iowa, Iowa City, Iowa 52240 (1970-72)
Elect: WANDA GREEN, Univ. of Northern Iowa, Cedar Falls, Iowa 50613 (1972-74)

Eastern: EDITH COBANE, State Univ. of New York, Albany, N.Y. 12203 (1971-73)

Midwest: PAT ROY, East Gary High School, E. Gary, Ind. 46405 (1971-73)

Northwest: JAN BOYUNGS, Central Washington State College, Ellensburg, Wash. 98926 (1970-73)
Elect: JEAN NEELY, Eastern Oregon College, La Grande, Ore. 97850 (1973-75)

ANN FULLILOVE, Averett College, Danville, Va. 24541
PEGGY RICHARDSON, North Texas State Univ., Denton 76201
ROSEMARY SLACKS, Univ. of Texas, Austin 78700

SYNCHRONIZED SWIMMING EXAMINATIONS AND RATINGS COMMITTEE

THERESA C. ANDERSON, *Co-chairman*, 2109 Fortieth St., Des Moines, Iowa 50310

JANET MOLDENHAUER, *Co-chairman*, Wisconsin State Univ., Oshkosh 54901

JOAN MORAN, *Past Chairman*, 1849 Harvard Ave., Salt Lake City, Utah 84108

MARGARET NAYLOR, Whitney Circle #20, Building 2, Auburn, Mass. 01501

MARILYN SHELDON, Green Mountain College, Poultney, Vermont 05764

SWIMMING PRINCIPLES AND TECHNIQUES OF OFFICIATING COMMITTEE

CAROL COOPER, *Chairman*, Southern Illinois Univ., Carbondale 62901

JOAN BAILEY, Kearney State College, Kearney, Neb. 68847

PEG KELSO, Rosary College, River Forest, Ill. 60305

SYNCHRONIZED SWIMMING PRINCIPLES AND TECHNIQUES OF OFFICIATING COMMITTEE

MARY KAZLUSKY, *Chairman*, Mt. Holyoke College, South Hadley, Mass. 01075

CAROL HASS, Box 35, Wilmington, N.Y. 12997
JOYCE LINDEMAN, Univ. of Michigan, Ann Arbor, Mich. 58104
BEVERLY REED, Univ. of Massachusetts, Amherst, Mass. 01002

Amateur Standing in Volleyball

According to the United States Volleyball Association, volleyball officials may get only transportation meals, and lodging and may receive no honorarium if they wish to retain their amateur standing.

HOW TO BECOME A RATED OFFICIAL

1. Study the rules, the article on the techniques of officiating, and the study questions.
2. Attend interpretations meetings and officiating clinics or training courses conducted in your vicinity.
3. Practice often. To some, officiating comes easily, to others it comes only as the result of hard work and concentration. Welcome criticism and work hard to improve.

Affiliated Boards of Officials
1971-1972

Each board listed below offers ratings as indicated. Affiliated boards may have rated officials at each grade level from National official to Intramural official. Provisional boards may have rated officials at the Associate and Intramural grade levels; they are indicated below by an asterisk (*). Upon request, the board chairman can supply a list of names, addresses, and telephone numbers of these officials.

Where it is indicated that the annual report was not received, the Examinations and Ratings chairman will not send the current examination packet to the board chairman until she receives this annual report.

For lists of boards given ratings, consult the appropriate *Guides*. The *Basketball Guide* lists all boards which give ratings in any sport.

CENTRAL DISTRICT

District Officiating Coordinator: Judy Clarke, Univ. of Iowa, Iowa City, Iowa 52240 (1970-72)
Elect: Wanda Green, Univ. of Northern Iowa, Cedar Falls, Iowa 50613 (1972-74)

IOWA

Iowa City Board of Women Officials
Chairman: Donna Newton, Univ. of Iowa, Iowa City 52240
Swimming Chairman: Susan Gnagg, State Univ. of Iowa, Iowa City 52240
Synchronized Swimming Chairman: (Same as above)
Ratings given in basketball, softball*, swimming, synchronized swimming, volleyball.

MINNESOTA

Arrowhead Board of Women Officials
Chairman: Lois Finseth, 916 Ebony Ave., Duluth 55811
Chairman-elect: Lois Finseth (same as above)
Swimming Chairman. Marry Mullen, Univ. of Minnesota, Duluth 55812
Ratings given in basketball, swimming, volleyball.

Minnesota Board of Women Officials
Chairman: Jean Anderson, 1717 N. Fry St., St. Paul 55113
Swimming Chairman: Joy Eby, College of St. Catherine's, St. Paul 55105
Ratings given in basketball, gymnastics, swimming, synchronized swimming, volleyball.

EASTERN DISTRICT

District Officiating Coordinator: Edith Cobane, State Univ. of New York, Albany, N.Y. 12203 (1971-73)

DISTRICT OF COLUMBIA

District of Columbia Board of Women Officials
Chairman: Lynn George, 6200 Lone Oak Dr., Bethesda, Md. 20034
Ratings given in basketball, gymnastics, softball, swimming, volleyball.

MAINE

Southwestern Maine Board of Women Officials
Chairman: Pat Raybould, Univ. of Maine, Portland-Gorham, Gorham 04038
Ratings given in basketball, gymnastics, swimming, tennis, track and field.

MARYLAND

Baltimore Board of Women Officials
Chairman: Joanne Murray, 3900 Beech Ave., Baltimore 21211
Swimming Chairman: Florence B. Bell, 6230 Gelston Park Road, Baltimore 21228
Ratings given in basketball, softball, swimming, volleyball.

NEW JERSEY

North Jersey Board of Women Officials
Chairman: Nancy Mueller, 520 Westminster Ave., Elizabeth 07901
Swimming Chairman: Doris Meyer, 52 Ryders Lane, East Brunswick 08816
Ratings given in basketball, gymnastics, softball, swimming, track and field, volleyball.

West Jersey Board of Women Officials
Chairman. Pearl Kowalski, 806 Division St., Gloucester 08405
Swimming Chairman: Adelaide Harris, 205 Eight Ave., Haddon Heights 08035
Ratings given in basketball, softball, swimming.

NEW YORK

Brockp rt-Rochester Board of Women Officials
Chairman: Eleanor Graham, State Univ. College, Geneseo 14454
Chairman-elect: Joyce Wechsler, State Univ. College, Geneseo 14454
Swimming Chairman: Shirley Carmichael, 6 Fleetwood St., Brockport 14420
Ratings given in basketball, swimming, volleyball.

Central New York Board of Women Officials
Chairman: Margaret Robb, State Univ. of New York, Cortland 13045
Swimming Chairman: Doris Soladay, 820 Comstock Ave., Syracuse 13210
Ratings given in basketball, gymnastics*, swimming, synchronized swimming, track and field*, volleyball.

Central Western New York Rating Board
Chairman: Elaine Brigham, 911 Dewey Ave , Rochester 14613
Swimming Chairman: Eleanor Graham, State Univ. College, Geneseo 14454
Ratings given in basketball, gymnastics, swimming, volleyball.

Long Island Board of Women Officials
Chairman: Mary Jane Beatty, 115 Birchwood Dr., New Hyde Park 11040
Chairman-elect: Ann Adamchik, 170 Grant Ave., Farmingdale 11735
Swimming Chairman: Olga Hopkins, 59 Marlboro Road, Valley Stream 11561
Ratings given in basketball, gymnastics, swimming, synchronized swimming, track and field, volleyball.

Long Island Board of Women Officials
Chairman: Mary Jane Beatty, 115 Birchwood Drive, New Hyde Park 11040

New York Board of Women Officials
Chairman: Helen Allen, 68-10 108 St., Forest Hills 11375
Swimming Chairman: Margaret K. Franco, 29-30 214th Place, Bayside 11300
Ratings given in basketball, gymnastics, softball, swimming, volleyball.

PENNSYLVANIA

Delaware Valley Board of Women Officials
Chairman: Nancy Yerkes, Swamp Rd., Furlong 18925
Chairman-elect. JoAnn Egizio, 325 Garden Rd., Oreland 19075
Swimming Chairman: Marjorie Mueller, 48 Spindletree Road, Levittown 19056
Ratings given in basketball, swimming.

Northeastern Pennsylvania Board of Women Officials
Chairman: Dolores Faust, 292 South Main St., Bangor 18013
Swimming Chairman: Janet German, East Stroudsburg State College, East Stroudsburg 18301
Ratings given in basketball, swimming.

Philadelphia Board of Women Officials
Chairman: Eleanor Snell, Fern Ave., R.D. #2, Collegeville 19426
Swimming Chairman: Mary Jane Christian, 1442 Stirling Dr., Wayne 19087
Ratings given in badminton, basketball, gymnastics, softball, swimming, synchronized swimming, volleyball.

MIDWEST DISTRICT

District Officiating Coordinator: Pat Roy,
East Gary High School, East Gary, Ind. 46405 (1971-73)

ILLINOIS

Northern Illinois Board of Women Officials
Chairman: Judy Kretzschmar, Concordia Teachers College, 7400 Augusta, River Forest 68305
Swimming Chairman: Pamela Kelso, 15443 University, Dolton 60419
Ratings given in basketball, gymnastics, softball, swimming, track and field, volleyball.

Southern Illinois Board of Women Officials
Chairman: Kay Brechtelsbauer, Southern Illinois Univ., Carbondale 62901
Swimming Chairman: Carol Cooper, 610 James St., Carterville 62918
Ratings given in basketball, gymnastics, swimming, tennis, volleyball.

INDIANA

Eastern Indiana Board of Women Officials
Chairman: Sandra Stultz, Ball State Univ., Muncie 47306
Chairman-elect: Nikki Assmann, Ball State Univ., Muncie 47306
Swimming Chairman: Nikki Assmann (same as above)
Ratings given in basketball, swimming, volleyball.

Noblesville Board of Women Officials
Chairman: Betty Heppner, 5115 E. 79th St., Indianapolis 46250
Swimming Chairman: Kay Pate, 6562 No. Carrollton, Indianapolis 46220
Ratings given in gymnastics, swimming.

MICHIGAN

Central Michigan Board of Women Officials
Chairman: Charlotte A. Denman, 4444 State A-303, Saginaw 48603
Swimming Chairman: Pat Podall, Central Michigan Univ., Mt. Pleasant 48858
Ratings given in basketball, swimming, volleyball.

Washtenaw County Board of Women Officials
Chairman: Elizabeth Menzi, Eastern Michigan Univ., Ypsilanti 48197
Synchronized Swimming Chairman: Elizabeth Menzi (same as above)
Ratings given in basketball, synchronized swimming, volleyball.

OHIO

Kent State Tri-County Board of Women Officials
Chairman: Laurel Wilcox, Wills Gymnasium, Kent State Univ., Kent 44240

Swimming Chairman: Shirley Van Valkenburg, Kent State Univ., Kent 44240
Ratings given in basketball, swimming, volleyball.

Youngstown Area Board of Women Officials
Chairman: Eleanor Roller, RD#1, Salem 44460
Ratings given in basketball, swimming, track and field, volleyball.

WISCONSIN

La Crosse Board of Women Officials
Chairman. Lee Stephenson, Wisconsin State Univ., La Crosse 54601
Swimming Chairman. Lee Stephenson (same as above)
Synchronized Swimming Chairman Ann Winter (same as above)
Ratings given in badminton, basketball, gymnastics, swimming, synchronized swimming, track and field, volleyball.

Southeastern Wisconsin Board of Women Officials
Chairman: Kathryn Vonderau, Williams Gym, Whitewater 53190
Swimming Chairman Pam Truog, 903 Zaffke, Ft. Atkinson 53538
Ratings given in basketball, swimming, volleyball.

NORTHWEST DISTRICT

District Officiating Coordinator: Jan Boyungs,
Central Washington State College,
Ellensburg, Wash. 98926 (1970-73)
Elect: Jean Neely, Eastern Oregon College,
La Grande, Oreg. 97850 (1973-75)

OREGON

Willamette Valley Board of Women Officials
Chairman: Carol Brownlow, Oregon College of Education, Monmouth 97361

Swimming Chairman: Astrid Hancock, Oregon State Univ., Corvallis 97331
Ratings given in basketball, swimming, volleyball.

SOUTHERN DISTRICT

District Officiating Coordinator: Jill Upton,
Box 1400, Mississippi State College for Women,
Columbus, Miss. 39701 (1970-72)
Elect. Aileen Britton, Edward White Senior High School,
Jacksonville, Fla. 32210 (1972-74)

MISSISSIPPI

Northeast Mississippi Board of Women Officials
Chairman: Jill Upton, Mississippi State College for Women, Columbus 39701
Ratings given in basketball, gymnastics, swimming, tennis, volleyball.

TEXAS

Central Texas Board of Women Officials
Chairman: N. June Burke, 1105 Clayton Lane #109, Austin 78723
Swimming Chairman. Jean Dalton, 1012 Reinli St. #216, Austin 78723
Ratings given in badminton, basketball*, swimming, tennis, volleyball.

Houston Board of Women Officials
Chairman: Betty Allison, 5911 Peg, Houston 77018
Swimming Chairman: Mildred Matthews, 3935 Matthews, 3935 Fernwood Dr., Houston 77021
Ratings given in basketball, swimming, tennis, volleyball.

VIRGINIA

Lynchburg Area Board of Women Officials
Chairman. Mary A. Heint , Longwood College, Farmville 23901
Swimming Chairman: Ruth Tergesen, Randolph-Macon Woman's College, Lynchburg 24504
Ratings given in basketball, swimming, volleyball.

Virginia Northwest Board of Women Officials
Chairman: Laura Mapp, Bridgewater College, Bridgewater 22812
Chairman-elect: Tresa Quarles, Harrisonburg High School, Harrisonburg 22801
Swimming Chairman. Patricia Davis Madison College, Harrisonburg 22801
Ratings given in basketball, gymnastics, softball*, swimming, volleyball.

SOUTHWEST DISTRICT

District Officiating Coordinator: Karen Johnson, California State College, Los Angeles, Calif. 90032 (1970-72)

ARIZONA

Central Arizona Board of Women Officials
Chairman. Sandra Smith, 3812 W. Purdue, Phoenix 85021
Swimming Chairman: Mona Plummer, Arizona State Univ., Tempe 85281
Ratings given in badminton*, basketball, softball, swimming, volleyball.

CALIFORNIA

Central California Board of Women Officials
Chairman: Rena A. Barsanti, Sacramento City College, Sacramento 95822
Swimming Chairman: Judi Holland, Sacramento State College, Sacramento 95819
Ratings given in basketball, softball*, swimming, volleyball.

Coastal Valley Board of Women Officials
Chairman: Donna Nichols, 48 Washington St., Santa Clara 95050
Swimming Chairman: Bonnie Edwards, 1125 Wekiva Ave., Campbell 95008
Ratings given in basketball, softball, swimming, volleyball.

Long Beach Board of Women Officials
Chairman. Sharon Love, 9611 Oasis Ave., Garden Grove 92644
Ratings given in basketball*, softball*, swimming, track and field*, volleyball.

San Fernando Valley Board of Women Officials
Chairman: Henry Shepherd, 915 Defoe St., San Fernando 91346
Swimming Chairman: Ann Collins, 5425 Rhea Ave., Tarzana 91356
Ratings given in basketball, softball, swimming, volleyball.

San Francisco Bay Counties Board Women Officials
Chairman: Ebie Fariss, 60 Joann Ct., Walnut Creek 94596
Swimming Chairman: Ebie Fariss (same as above)
Ratings given in basketball, gymnastics, softball*, swimming, track and field*, volleyball.

Santa Barbara Tri-Counties Board of Women Officials
Chairman Millie Andress, 700 Wendy #15, Newbury Park 91370
Swimming Chairman: Geraldine Walklet, 102 North Hope Ave. #8, Santa Barbara 93105
Ratings given in basketball, swimming, volleyball.

NEW MEXICO

New Mexico Board of Women Officials
Chairman. Arlene Kilpatrick, Western New Mexico Univ., Silver City 88061
Ratings given in basketball, gymnastics, swimming, volleyball.

STANDARDS FOR OFFICIALS RATINGS

Badminton, Basketball, Softball, Swimming, Tennis, Track & Field, and Volleyball

There are five officials ratings. Each is designed to meet the needs of various levels of sports events and to stimulate interest of individuals who desire to officiate. All ratings are transferable, and none is a prerequisite to any other rating.

The *Intramural rating* qualifies the holder to officiate games in the school in which she is enrolled or games of comparable level.

The *Associate rating* qualifies the holder to officiate which may be adequately controlled by a lesser experienced official.

The *Local rating* signifies that the holder is capable of officiating the typical interschool or recreational league game.

The *Honorary rating* denotes at least ten years' service as a National official and represents maturity and experience.

The *National rating* signifies that the holder is capable of officiating any game anywhere in the United States. This rating is for the most highly skilled official.

Specific requirements for all ratings are outlined below.

Intramural Official

1. Minimum grades–theory, 70; practical, 70.
2. Theoretical examination special intramural examination or national examination, minimum 70
3. Practical examination satisfactorily officiate one contest
4. Age–no requirement.
5. Duration–two years from next June 1.
6. Recommended fees–minimal fees as established by the institution, *if desired.*

Associate Official

1. Minimum grades–average of theory and practical, 75.
2. Theoretical examination national examination, minimum 74.
3. Practical examination–given by at least one National official, minimum 75.
4. Age–no requirement.
5. Duration two years from next June 1.
6. Recommended fees–maximum $5 plus traveling expenses for a single game, match, or meet.*

Local Official

1. Minimum grades–average of theory and practical, 80.
2. Theoretical examination–national examination, minimum 78.

3. Practical examination–given by at least two members with National ratings, minimum 80.
4. Age–no requirement.
5. Duration–two years from next June 1.
6. Recommended fees. $7 plus traveling expenses for a single game, match, or meet.*

Junior National Official

1. Age–below 20 years. At 20 years, rating automatically becomes a National rating.
2. For other requirements, see *National Official* below.

National Official

1. Minimum grades–average of theory and practical, 85.
2. Theoretical examination–national examination, minimum 82.
3. Practical examinations
   a. Practical examination–given by at least three members with National ratings, minimum 85.
   b. Alternate plan for basketball or volleyball (second year of trial)–after holding a National rating with the same board for four consecutive years, the official may request that seven different coaches evaluate her officiating (see appropriate sports packets for details), in lieu of the practical rating session.
4. Age–minimum 20 years by June 1 of the year rating is taken.
5. Duration–two years from next June 1.
6. Recommended fees–$9 plus traveling expenses for a single game, match, or meet. If only one official is used, the fee should be $18 plus traveling expenses for a single game.

National Honorary Rating

1. An applicant is eligible to apply after earning her *fifth consecutive rating at two-year intervals.* The application should be made to the past chairman of the Officiating Services Area by the affiliated board chairman and should be in the hands of the past chairman by March 1.
2. Alternate requirement–when a lapse of one year has occurred in the holding of a National rating, 12 years of service as a National or Junior National Official are required. This would be a span of 13 years. Apply after earning the sixth rating.
3. Duration as long as the official remains active (officiating games, training officials, or acting as a rater affiliated board). For reinstatement after being inactive more than one year, the official must pass the national theoretical examination with a minimum score of 86.

*See *Gymnastics Guide* for information about judges ratings in gymnastics and fee exceptions.

Levels of ratings for gymnastics and synchronized swimming are:

Gymnastics	*Minimums*	
	Theoretical	*Practical*
National	90	80
Regional	80	65
Local	70	50

Synchronized Swimming	*Minimums*	
	Theoretical	*Practical*
National	90	85
Regional	80	75
Local	70	65

FEE EXCEPTIONS

Swimming. The fees for Nationally rated swimming officials shall be—

When there are three officials, $6 plus traveling expenses per official for a single meet (whether dual or group), $9 plus traveling expenses per official for meets with first and second teams participating.

Where there are fewer than three officials: $9 plus traveling expenses per official for a single meet (whether dual or group); $12 plus traveling expenses per official for meets with first and second teams participating.

Tennis. In compliance with the United States Lawn Tennis Association policy, no fees will be charged for officiating tennis matches, although travel expenses may be accepted.

Track and Field. It is customary for one official to be paid a minimum of $9 per session (a session shall be defined as a period of time approximately three hours in length) plus traveling expenses. In the case of shorter sessions, fees should be adjusted accordingly. When possible, other officials may be paid.

* *Note.* These fees are recommended by the Executive Board as a guide to Affiliated Boards. These boards may set fees lower or higher than those suggested above when the local situation demands an adjustment from the recommended fees.

REGISTRATION OF OFFICIALS

A number of states require those who officiate either boys or girls interscholastic contests to be registered with the State High School Athletic Association or other administrative body. Holding a DGWS

Boards are urged to promote the rating of Intramural officials by supplying examinations and practical rating forms to teachers in nearby schools. Fees to cover operating expenses may be charged to the candidates for these services. Records of all ratings must be kept by the boards.

Please write to the Officiating Services Area secretary for assistance in the organization of new groups desiring to become affiliated or provisional boards.

Badminton, Gymnastics,[1] Softball, Swimming, Synchronized Swimming,[1] Tennis, and Track and Field Ratings

A board does not need to have a specific number of officials in order to initiate ratings in these sports. Examinations will be sent to the board chairman when she makes application to the chairman of the Examinations and Ratings Committee *of the sport in which ratings are to be given.*

Examination packets are mailed according to the following schedule:

September 15—badminton, basketball, swimming, synchronized swimming, tennis, and volleyball
When rating film booking has been confirmed—gymnastics
November 15—track and field
January 15—softball

Choose at least three of the best qualified individuals to act as the examining committee for the sport. (After two years, if a board wishes to continue affiliation in a sport, it will be required to have at least three National officials in the particular sport.)

Basketball and Volleyball Ratings

To initiate ratings in basketball, an affiliated board must have three National Officials, and a provisional board must have three officials with at least an Associate rating.

To initiate ratings in volleyball, an affiliated board must have one National official, and a provisional board must have one official with at least an Associate rating.

Emblem and Uniform

The emblem for National officials in all sports consists of a shield. Other emblems are available for Local, Associate, and Intramural officials.

The official uniform is a navy blue and white tailored cotton shirt worn with any navy blue tailored skirt and white tennis shoes and

[1] See respective *Guides* for rating procedures.

socks. A navy blue blazer may complete the uniform if desired. Officials who receive fees for officiating are required to w r the official shirt.

The official shirt and white shorts or tailored skirt constitute the uniform for National swimming officials.

The official shirt and navy blue or white tailored skirt constitute the uniform for National tennis officials.

The official shirts and emblems are available from The Hanold Company, Sebago Lake, Maine 04075. The company can also provide approved blazers. When ordering, send dress size and check or money order for correct amount. Anyone may order the official shirt. A current rating card must accompany an individual's order for an emblem; however, it is not necessary to send a rating card when ordering a shirt.

An affiliated board may wish to have a supply of shirts or emblems for distribution to newly rated officials. A quantity order may be placed *only* by the affiliated board chairman. It is not necessary that the chairman enclose her own rating card, but full payment must accompany the order.

Prices: Shirt, $5.00, blazer, doeskin, $28.00; National and Junior National emblems, $1.75; Local, Associate, and Intramural emblems, $1.

Shipping charge. 75 cents per order.

HOW TO ESTABLISH A BOARD OF OFFICIALS

1. Establish the need for an affiliated board by contacting women in the area who have current ratings or who are interested in standardizing and raising the level of officiating badminton, basketball, gymnastics, softball, swimming, tennis, track and field, or volleyball in that area.
2. Write to the Officiating Services Area Secretary, listed in the Officiating Services Area section for this *Guide*, for a sample copy of an authorized constitution for officials' boards and the *Policies and Practices Handbook* and application for becoming an affiliated board.
3. At a designated meeting of interested women, present plans for forming a board.
   a. Choose a name which will permit expansion of function as need may arise, do not limit title to one sport.
   b. From the group, elect a chairman, chairman-elect, secretary, and treasurer.
   c. Form an examining committee of at least four members. If any member has been rated elsewhere, her experience should be helpful; such a rating is not necessary, however, except in

basketball and volleyball. (See 4 below.) It is suggested that members of the examining committee be examined and obtain ratings from other affiliated boards whenever possible.

d. Make plans for drawing up a constitution according to the sample copy received from the Officiating Services Area.

e. Plan to devote some time to the study of the rules and to practice officiating. If possible, secure the assistance of some rated official in each sport for which the Board anticipates giving ratings.

4. Send to the Officiating Services Area Secretary the completed application form, two copies of the local constitution, and a check for $5 annual dues (made payable to the Officiating Services Area). If *basketball* ratings are to be given, an affiliated board must send a list of three National officials, and a provisional board must send a list of three officials with at least an Associate rating. If *volleyball* ratings are to be given, an affiliated board must send the name of one National official, and a provisional board must send the name of one official with at least an Associate rating. A list of four interested women must be sent if the board wishes to give rating in sports other than basketball or volleyball. If a board wishes continued affiliation in any sport, at the end of two years, an affiliated board will be required to have at least three National officials; a provisional board will be required to have at least three officials with at least an Associate rating. Approval of the application will come from the Officiating Services Area Chairman who will request that examination packets be sent to your Affiliated Board Chairman for all sports in which your Board is authorized to give ratings. The process of accepting an application for affiliation of a new Board and of requesting that the proper examination packets be sent ordinarily takes several weeks. Prospective Boards, therefore, should file for affiliation at least a month before they wish to hold rating sessions.

5. Administer Form A of the National Theoretical Examination. To cover the operating expenses, charge a small fee payable at the time of taking the written examination. Form B of the National Theoretical Examination may be administered to those who did not pass Form A.

6. Conduct practice sessions in rating officials. All persons on the examining committee who have not previously rated officials should have a minimum of three practice sessions prior to actually rating. Secure the assistance of a rated official in these practice sessions if at all possible.

7. Give practical examinations to individuals who pass the written examination. These should be conducted by three members of the examining committee.

8. Request appropriate rating cards from the OSA Secretary for distribution to those who pass the theoretical and practical examination.

9. Send lists of approved officials to schools and other organizations in the area. This notice should indicate the maximum fees for officiating in accordance with the OSA policy and should give the name, address, rating, and telephone number of each official.

10. Keep accurate lists of all persons receiving ratings. Forward these lists to the chairmen of the Examinations and Ratings Committees in those sports in which your Board was authorized to give ratings.

SOURCES OF INFORMATION AND MATERIAL

Information Needed	Source
Board policy	Officiating Services Area Chairman
Policies and Practices Handbook	Officiating Services Area Secretary
Rules interpretation	DGWS rules interpreter for each sport. Secure the name from the current *Guide* of the sport.
Expansion and affiliation	Officiating Services Area Secretary
Dues	Officiating Services Area Treasurer
Officiating standards for each sport	Chairman of the Principles and Techniques of Officiating Committee
National Honorary rating	Past Chairman of the Officiating Services Area

Materials Needed	Source
Rating cards	Officiating Services Area Secretary
Examination material	Examinations and Ratings Chairman for the sport in which examinations are desired
DGWS Guides	DGWS-AAHPER, 1201 Sixteenth St., N.W., Washington, D.C. 20036
Uniforms and emblems	The Hanold Company, Sebago Lake, Maine 04075

Officiating Services Area officers are listed under Officiating Executive Board in this *Guide*.

INFORMATION REGARDING SYNCHRONIZED SWIMMING OFFICIALS RATING

DGWS synchronized swimming materials are based on the use of official AAU synchronized swimming rules. Schools and colleges interested in such competition need not have their meets sanctioned by AAU unless they so desire.

The *Official Synchronized Swimming Handbook*, which contains the rules, is available for $1.50 from the Amateur Athletic Union, AAU House, 3400 W. 86th St., Indianapolis, Indiana 46268.

The AAU rules are changed yearly, but the *Aquatics Guide* is printed once every two years; therefore, these articles (Study Questions and Techniques of Officiating Synchronized Swimming) will not always be up-to-date. The AAU *Synchronized Swimming Handbook* is available about February 1 of each year.

For Boards wishing to start a synchronized swimming rating for the first time, the chairman of an Affiliated Board should write to the co-chairman of the Synchronized Swimming Examinations and Ratings Committee: Janet Moldenhauer, Women's Physical Education, Wisconsin State University, Oshkosh, Wisconsin 54901

This letter should include the names, addresses, and qualifications of three persons interested in synchronized swimming. After being examined by the Board chairman, these three persons, as a group, become the initial Synchronized Swimming Examining Committee for the Affiliated Board it represents.

The synchronized swimming rating will be good for two years. The following levels and standards are minimums for each category. The lowest score would determine the highest rating which could be obtained.

	Theoretical	*Practical*
National	90%	85%
Regional	80%	75%
Local	70%	65%

There are no recommended fees as of this time for rated synchronized officials.

Synchronized Swimming Study Questions 1971-1972

Prepared by the Synchronized Swimming Examinations and Rating Committee

1. Susan received the following scores in stunt competition for her performance of a ballet leg, single: 8.5, 7, 6.5, 7.5, 6, 8, 7. What is her score for this stunt?
   a. 54.0 b. 57 6 c. 64.8 d. 36.0
2. In stunt scoring, what is the best description of a 5 - 6½ point spread?
   a. Design – recognizable, major deficiencies
      Control – very poor
   b. Design – average
      Control – average
   c. Design – good body position
      Control – above satisfactory
   d. Design – unsteady body positions
      Control – weak
3. In stunt competition where shall the competitor perform the stunts?
   a. In an area designated by stunt judges.
   b. In a relatively stationary position anywhere in the pool.
   c. In an area designated by the referee.
   d. In an area designated by the meet manager.
4. What is the penalty for a competitor who has a balk or false start on a stunt during stunt competition?
   a. Individual stunt score reduced by 1/2.
   b. Individual stunt score reduced by 1/3.
   c. Individual stunt score reduced by 2/3.
   d. Individual stunt score reduced by 1/4.
5. How late can the list of optional stunts and routine sheets be altered prior to competition?
   a. One day in advance.
   b. 12 hours prior to competition.
   c. One hour prior to draw for order of appearance.
   d. Before call by clerk of course.
6. What is the degree of difficulty for a barracuda, front pike somersault?
   a. 1.6 b. 1.7 c. 1.8 d. 1.9

7. Which of the following is *not* part of the basic fundamentals of design?
   a. Circle, starting at the surface
   b. Full body extension
   c. Horizontal body position
   d. Front pike position

8. The subilarc belongs in which stunt category?
   a. Ballet leg group
   b. Diverse group
   c. Dolphin, foot first group
   d. Somersault group, front and back

9. How many solos may a club enter in dual meet competition?
   a. 1 b. 2 c. 3 d. no limit

10. What is the minimum degree of difficulty for the optional stunts used in stunt competition?
    a. 1.6 b. 1.7 c. 1.8 d. 1.9

11. What are the elements included in design?
    a. Body positions and transitions
    b. Body positions and elevations
    c. Body positions and confidence
    d. Body positions

12. In stunt competition, at the advice of the referee, who reduces the competitor's score for a balk or false start?
    a. Scorer
    b. Routine competition judge
    c. Stunt competition judge
    d. Vice referee

13. How many judges must be used for routines in national competition?
    a. 4 b. 5 c. 7 d. 3

14. What is the score breakdown in stunt competition?
    a. Design – 5, Control – 5
    b. Design – 6, Control – 4
    c. Design – 4, Control – 6
    d. Design – 7, Control – 3

15. For senior national competition, the compulsory stunts shall not exceed what degree of difficulty?
    a. 1.6 b. 1.7 c. 1.8 d. 1.9

16. Mary received the following scores in stunt competition for her performance of a gaviata, back pike somersault open spin 180°: 7, 8, 7.5, 8, 8.5, 9, 7.5. What is her score for this stunt?
    a. 67.15 b. 82.95 c. 71.1 d. 55.25

17. How many required stunts, listed and performed as described in the rules, must a routine contain?
    a. 3 b. 4 c. 5 d. 6

18. The maximum time limit for a team routine shall be how many minutes?
    a. 3 b. 4 c. 5 d. 6

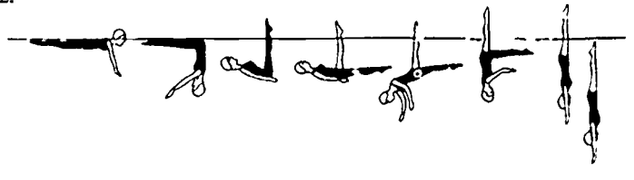
19. What is the degree of difficulty for an Eiffel Walk?
    a. 1.4 b. 1.5 c. 1.6 d. 1.7

20. How many alternates may be listed for duet and team routines?
    a. One for a duet and one for a team
    b. One for a duet and two for a team
    c. One for a duet and three for a team
    d. Two for a duet and two for a team

Stunt Identification:*

21.

22.



23.

* Reprinted by permission of the Amateur Athletic Union.

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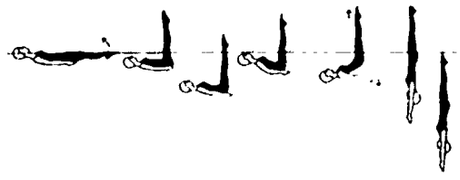

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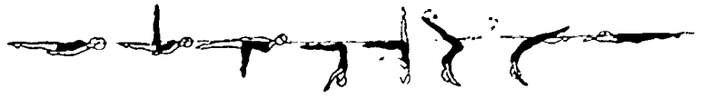

ANSWERS AND RULE REFERENCES

Answer		*Rule Reference*	*Answer*		*Rule Reference*
1.	A	VII, XII	14.	A	VI
2.	B	VI	15.	B	IV
3.	C	II	16.	B	VII, XII
4.	B	VIII	17.	C	V
5.	B	II	18.	C	V
6.	D	XII	19.	D	XIII
7.	B	XV	20.	B	II
8.	D	XIII	21.	Kip, Split	XVI
9.	B	X	22.	Subalina	XVI
10.	C	IV	23.	Heron, Back Pike Somersault	XVI
11.	D	VI			
12.	A	VIII	24.	Barracuda	XVI
13.	C	V	25.	Eiffel Walk	XVI

Inquiries concerning the synchronized swimming study questions or examinations should be addressed to co-chairman of the Synchronized Swimming Examinations and Ratings Committee: Janet Moldenhauer, Wisconsin State University, Oshkosh, Wisconsin 54901.

Techniques of Officiating Synchronized Swimming

Prepared by the
SYNCHRONIZED SWIMMING PRINCIPLES AND TECHNIQUES
OF OFFICIATING COMMITTEE

The following descriptions of techniques for synchronized swimming officials are intended to summarize the officiating procedures as included in the AAU rules. It is important, therefore, that both sources be consulted for a complete understanding of officiating responsibilities.

Equipment

Provided by the official:

1. DGWS *Aquatics Guide* and *Official AAU Synchronized Swimming Handbook*
2. Clipboard and pencil
3. Whistle (needed only by referee)
4. Cap and/or dark glasses if the meet is held outdoors
5. The official shirt with white shorts or skirt is the uniform for National Synchronized Swimming Officials. All other officials shall wear a white shirt and white shorts or a white dress.

Provided by the organization holding the competition under the direction of the meet manager:

1. Entry forms which must include information regarding the following:
   a. Pool dimensions with specific reference to the depth of the water, water level below deck, position of diving boards, ladders, a cross section drawing of the pool, etc.
   b. Markings on bottoms and sides of pool
   c. Type of lighting
   d. Position of audience with reference to pool
   e. Open space for entrance and exit
   f. Type of sound equipment available
   g. Medical examination requirements
2. Adequate markings on bottom and/or sides of pool for stunt competition
3. Equipment for the reproduction of accompaniment, including an underwater speaker(s)
4. Public address system
5. Large scoreboard (chalkboard)
6. Numbers for drawing of swim order
7. Stopwatch for each timekeeper (3)

8. A means of recording and a visible signaling of awards (flash cards) for judges
9. Award stand for first, second, and third place winners
10. An American flag and a recording of our national Anthem (optional).

PREMEET PROCEDURES COMPLETED BY ORGANIZATION HOLDING COMPETITION

1. Process entry forms and stunt and routine sheets upon receipt from the competitor, and notify the referee of any irregularities. This will include checking the number of groups and degrees of difficulty of stunts, checking routine sheets, and separating the stunt and routine sheets for officials.
2. Prepare lists or entries, checking entry fees, doctors' certificates, etc.
3. Provide a list of meet officials for the referee, worksheets for each event (i.e., contestants' names and their team affiliations); and a master scoresheet.
4. Provide stunt-competition and routine-competition judges with folders which hold forms to record scores, order of appearance of competitors, methods of grading (summary), scratch paper, pencils, etc.
5. Publicize the event in campus paper, community paper, etc.

OFFICIALS

The officials shall consist of the following:

1. Referee
2. Vice referee
3. Clerk of course (2)
4. Stunt competition judges (9 or 18) preferably
5. Routine competition judges (7)
6. Scorers (3 or more)
7. Announcers (2)
8. Timers (3)
9. Readers (one for referee and one for vice referee)
10. Sound center manager and underwater sound monitor
11. Meet manager
12. Press steward, typist
13. Runners (2)

Where an insufficient number of rated officials is available, the positions of lesser responsibility may be filled by students or staff who have received some training for their specific duties.

Selection of Judges and Referee

1. The judges for national competition shall be chosen by secret ballot from eligible judges of a current accredited list.
2. Each participating group in any event is entitled to one vote for judges in that event (solo, duet, team).
3. Each participating group shall have one vote in the secret ballot selection of judges for stunt competition.
4. Each participating group shall have one vote in the secret ballot selection of referee and vice referee.

DUTIES OF OFFICIALS

Referee

1. Shall have full jurisdiction over the meet; shall enforce all rules and decisions governing the meet; and shall decide all questions relating to the actual conduct of the meet, the final settlement of which is not otherwise assigned by said rules
2. Shall penalize competitor(s) for any violations of the rules
3. Shall be given a list of the officials and shall assign each his particular duty, being certain that each assigned official understands his responsibility as indicated by the rules. He shall have the authority to change any assignments of duty
4. Shall have the authority to interfere in a competition at any state to ensure that the rules are observed, and shall have the power to call off or postpone to a future date any event even though the same has started, if in his judgment the competition cannot be conducted or completed in a satisfactory manner and in fairness to the competitors. At the discretion of the governing committee such postponed events can be conducted (between the competitors who reported on the first date) at a future date as though the competition had never been started.
5. Shall determine that the contestants are ready, and shall signal by blowing a whistle
6. Shall check (with the assistance of the vice referee and two readers) the performance of the contestants against their submitted sheets. Referee and vice referee confer on any questions of infraction of rule against competitor. The referee, after judges' awards have been recorded, shall instruct the scoring table of decision and shall record penalties. The vice referee shall advise the competitor(s) of the infraction.

Refer to *AAU Handbook* for Referee's Penalties.

Vice Referee

1. Shall carry out duties as assigned by the referee.

Clerk of Course

1. Shall obtain the order of draw and ascertain that all competitors in a given flight are in readiness

Judges

When possible, the same judges should officiate for both the preliminaries and finals and should maintain their same respective positions throughout an event. In emergencies, the referee is authorized to assign alternate judges from the accredited list.

Each judge shall be provided with a means of recording and a visible signaling of awards.

No judge shall communicate with another individual while competition is in progress.

1. Stunt Competition

   Seven (or nine) judges of stunt competition shall be placed, when possible, in elevated positions in such locations as to have a profile view of the competitors (approximately 12 feet from the pool edge).

   They shall judge the competitor from the sound of a whistle (which follows an announcement of the contestant's name and affiliation, the stunt and its degree of difficulty) to the completion of the stunt. Upon the signal for simultaneous flashing of awards, the judges shall visibly show their scores (to be read orally by the announcer).

2. Routine Competition

   Each judge in routine competition shall be provided with a clerk. Judges of routine competition shall be placed in elevated positions, when possible, on more than one side of the pool.

   At the completion of each routine, each of the judges shall record both the execution and the style grades and shall hand the recorded awards to his clerk. When the referee has determined that each of the clerks has received the recorded awards, the referee shall then signal for the simultaneous flashing, first of the execution awards and then of the style awards, by the judges.

DETAILED SYSTEM OF STUNT GRADING *

Judge's Responsibility

Excellent 9-10

Design: Ballet leg perpendicular to surface of the water, horizontal leg at surface – near perfect body positions.

Control: Effortless, near perfection

* Ballet leg example listed throughout.

Good ..... 7 - 8½
Design: Between the satisfactory and excellent categories
Control: Between the satisfactory and excellent categories

Satisfactory ..... 5 - 6½
Design: Extension mediocre. Horizontal and vertical lines slightly off the horizontal and perpendicular, respectively
Control: Lacking good, full body extension

Unsatisfactory ..... 3 - 4½
Design: Errors in every part of the execution
Control: Weak and unsteady

Deficient ..... ½ - 2½
Design: Recognizable but with major deficiencies throughout. Body in semisitting position, knees bent, knee of horizontal leg flexed, foot depressed
Control: Very poor throughout

Failed 0
Unrecognizable as listed stunt or stunt performed other than listed

Scorers

1. Shall, individually, record the grades and make the necessary computations to obtain the final scores. The written score shall be the official award.
2. Total score shall be the sum of the scores for stunts, execution of the routine, style of the routine, and the team bonus points, if any, less the referee's penalties.
3. Stunt competition
   a. Record individual awards, each time in the same consecutive order, on a scoresheet.
   b. Cancel the two highest and two lowest awards. If five or seven judges are used, cancel only the one highest and one lowest award. If three judges are used, there shall be no cancellation.
   c. Add the remaining awards and multiply the sum by the degree of difficulty of the stunt.
   d. Follow this same procedure for each of the stunts.
   e. Add the scores for the individual stunts for each competitor, individually, and divided by 10. This quotient is the individual's stunt score.
   f. If either five or three judges are used, multiply the individual's stunt score by 1.66. If nine or seven judges are used, omit this step.

g. In duet and team competition, add the individual stunt scores of each member of the routine and divide by the number of competitors in the duet or team. This quotient becomes the duet or team stunt score.

4. Routine competition
   a. Execution score
      1) Record the individual awards, each time in the same consecutive order, on a scoresheet.
      2) Cancel the two highest and two lowest awards. If five judges are used, cancel only the one highest and one lowest award. If three judges are used, there shall be no cancellation.
      3) Add the remaining awards and multiply the sum by the average degree of difficulty of the routine (sum of the difficulty multiples divided by 5 and carried to the fourth decimal, not to exceed 1.8.
      4) This procedure gives the score for execution of the routine.
   b. Style score
      1) Record the individual awards, each time in the same consecutive order, on a scoresheet.
      2) Cancel the two highest and two lowest awards. If five judges are used, cancel only the one highest and one lowest award. If three judges are used. there shall be no cancellation.

5. Bonus points for team routines

   In the case of team competition, whether preliminary or final events, one-half point shall be added to the total score for each additional competitor over four on a team.

6. Scoring systems for dual meet competition

   In dual meet competition, a club may enter one team, two duets, and two solos. Scoring shall be as follows:
   Teams–8 for winner; 0 for loser
   Duets–7 for winner; 4 for second place; 2 for third place
   Solos–5 for winner, 3 for second place; 1 for third place

7. Scoring system for team trophies

Places	1st	2nd	3rd	4th	5th	6th	7th
Teams ...	14	10	8	6	4	3	1
Duets	9	7	5	4	3	2	1
Solos	8	6	5	4	3	2	1

Announcers

1. Shall make only such announcements as are authorized by the referee
2. In the stunt and routine competition, shall announce the number of the competitor(s) and the stunt to be performed or the title of the routine
3. Shall announce the judges' awards in sequence in both stunt and routine competition
4. In routine competition, after the scores have been given, shall announce the name(s) and affiliation of the swimmer(s).

Sound Center Manager

1. Shall be responsible for properly presenting the accompaniment for each routine
2. Shall obtain the order of draw and arrange the accompaniment accordingly.

Timers

1. Shall check the overall time of the routine as well as that of the deck movements
2. Shall record the times on the master scoresheet
3. If the time is in excess of the limit in either or both of the categories, shall so inform the referee.

Readers

1. Shall perform duties as assigned by the referee.

Underwater Sound Monitor

1. Shall test for sound underwater during the accompaniment test prior to each routine, and shall notify the referee of the results of his test, except that when a monitor-type sound system is used, a test for sound underwater will be made prior to the start of the competition and following every seventh routine.

Press Steward

1. Shall obtain from the clerk of course and the scorers the names of all competitors in each event, and shall keep the press thoroughly informed on all details of the competition during the meet.

Runners

1. Shall deliver score forms as directed by the referee.

Meet Manager

1. Shall be responsible for all premeet requirements as listed in the rules.

SAMPLE*

SYNCHRONIZED SWIMMING SCORESHEET: STUNT COMPETITION

Name: Ruth Ann Smith

Representing Lion High School

City and State: Lincoln, Indiana

Type meet Group meet

Where held: Memphis, Ohio

		Order
Solo	X	12
Duet		Place
Team	X	3

Date. May 5, 1971

	Stunt No.	Stunt Name	Judges Awards 1	2	3	4	5	6	7	8	9	Total Minus hi-los	Deg. of Diff	Score Points
R/1	104	Ballet Leg Roll, Single	7 5	6	7	6 5	7 5	6 5	8	7 5	7 5	36 0	1 7	61 20
R/2	525	Walkover, Back		8	7 5	8	6 5	7	7	6 5	7 5	36 5	1 6	58 40
R/3	429	Somer-Sub	6	5 5	6	6	6 5	6 5	5 5	6	6	30 0	1 6	48 00
0/1	202	Contra-Crane	6	5.5	5	6	5 5	5 5	6	5	6	28 5	2 0	57 00
0/2	313	Dolph-alina	5 5	5	4 5	5 5	5	5	5 5	4 5	5 5	26 0	2 1	54 60
0/3	103	Legs, Double Ballet	7 5	8	7 5	8	6 5	7	7	6 5	7 5	36 5	1 8	65 70
												Subtotal		344 90
												Penalties:		16 00
												Total		32 89

Description of Penalties:

Balk on stunt No 429

Referee. Joan Green

Scorer: Sally Brown

Sig of Contestant: Ruth Ann Smith Age 15

* Refer to current AAU Handbook for update.

SAMPLE*

ROUTINE SCORESHEET FOR SYNCHRONIZED SWIMMING COMPETITION—TEAM

Team name: Lions	Solo		Order
Representing. Lion High School			7
Title: "Doctor Doolittle"	Duet		
Type meet: Group meet			Place
Where held: Memphis, Ohio Date: 5-5-71	Team		5

Comp. Stunt No.	Skeletel Form of Routine: List exactly in order of performance:	Deg. of Diff.	Team Contestants Names:	Stunt Scores
			1. Ruth Ann Smith	32.890
			2. Barbara Brown	27.405
111	Catalina, Reverse	1.7	3. Mary Horn	31.155
			4. Susan Green	29 690
103	Ballet Legs, Double	1.8	5. Margaret Grass	31.315
			6. Kathy Flower	30.680
202	Contra-Crane	2 0	7.	
			8	
521	Swordfish	1.7	Alt: Lynn Apple	
401	Barracuda	1.8	Description of Penalties:	
			Swordfish not executed simultaneously	
			Sign. of Coach.	
	Total Difficulty Multiples:	9.0	Degree of Difficulty for Scorers to	
	Divided by Five:	1 8	Compute 1 8	

Judges No.	1	2	3	4	5	6	7	total	score
Exec. Award	6	6.5	7	7	6.5	6	7	20.0	36.0
Style Award	5.5	6	6.5	6.5	6	5.5	6.5	18.5	18.5

Oec!	Points.	54.5
Time· 0.18.0	Penalties:	1.0
Overall	Bonus Pts.	1.0
Time: 5 00.0	Subtotal	54.5
	Stunt Score	30.5225
	Preliminary Total	85.0225

Referee: Joan Swim
Scorer: Sally Drown

Judges No.	1	2	3	4	5	6	7	total	score
Exec Award	6.5	7.5	7	6.5	6.5	7	7	20.5	36.90
Style Award	6	6.5	6.5	7	6	6	7	19.0	19.0

Oeck	Points.	55.90
Time· 0 18 0	Penalties:	1.0
Overall	Bonus Pts.	1.0
Time: 5·00.0	Subtotal	55.9
	Stunt Score	30.5225
	Final Total	86.4225

Referee Joan Swim
Scorer: Sally Orown

* Refer to current AAU Handbook for update.

SWIMMING STUDY QUESTIONS 1971-1973

Prepared by the Swimming Examinations and Rating Committee

1. During a championship diving meet, how many contestants should qualify for the semifinals if a 12-place scoring system is used?
   a. 12
   b. 16
   c. Number determined by diving referee
   d. 6 from each team competing

2. During a triangular meet, Team B took third in the 100 yd. individual medley relay, first in the 25 yd. butterfly event, and second in the diving event. What was Team B's score?
   a. 6
   b. 8
   c. 10
   d. None of the above

3. In a dual meet, Team A places first in the 75-yard relay. Prior to the event Team A had 22 points. How many points does Team A have after this event?
   a. 26 b. 28 c. 29 d. 30

4. Which of the following statements concerning the use of the ballot system is correct?
   a. The lane judges for a given lane are stationed on the side of the pool which is closer to the lane they are judging
   b. The contestant with the highest number of points is declared the winner
   c. If a lane judge thinks the swimmer in his lane tied for 2nd place, he records 2nd place on his card with no mention of a possible tie
   d. In case of a tie, the winner is determined by the fastest official time

5. In a group where five lanes are used, representatives of Team A place as follows: 3rd in freestyle relay, 1st in medley relay, 1st in 50 yd. butterfly, 4th in diving, and a tie for 2nd (with one other swimmer) in 100 yd. backstroke. What is their total after these 5 events?
   28 points
   29 ½ points
   c. 30 points
   d. 31 ½ points

6. Swimmer 1 falls into the water before the starting signal is given. Swimmer 2 starts her arms forward at the same time but manages to stand up when the command is given. What is the decision?

a. Starter charges swimmer 1 with a false start?
b. Starter charges swimmers 1 and 2 with false starts
c. Referee disqualifies swimmer 1
d. Referee disqualifies swimmers 1 and 2

7. Which of the following would disqualify a swimmer in a backstroke race?
a. Failing to be squarely on her back before her feet push off wall following a turn
b. Pulling and recovering with arms simultaneously
c. Doing an inverted breaststroke to surface after going too deep on a turn
d. None of the above

8. Which of the following is required by the DGWS rules?
a. The starter must notify contestants to report to the starting mark at least five minutes before the event is to start
b. Diving contestants must submit their list of preliminary, semifinal and final dives by the scratch deadline
c. The inspector of strokes, turns and lanes reports rules infractions directly to the scorer
d. The referee reads the watches in the event of a tie

9. What score would a diving judge award for a satisfactory dive?
a. 5 points
b. 7½ points
c. 4 points
d. 9 points

10. To which official do contestants report when called prior to an event?
a. Clerk of Course
b. Referee
c. Chief Timekeeper
d. Starter

11. Two contestants obtain the same number of points in the diving competition. What is the procedure?
a. Higher total of compulsory dives is computed
b. A tie is declared
c. Higher total of optional dives is computed
d. Higher score of dive with highest degree of difficulty is computed

12. Which of the following is illegal during a four-stroke medley-relay?
a. Swimmer B's arms are in motion before Swimmer A completes her distance
b. Due to illness of a member of the relay team, Swimmer A completes her distance, then swims the distance for absent Swimmer D
c. Swimmer A completes her distance with the backstroke, Swimmer C finishes her distance with the butterfly before D begins

d. Swimmer B dives in to begin her distance, before she comes up from the dive she takes one armstroke underwater

13. Which procedure is *not* correct when making lane assignments by the seeding method?
    a. Swimmer with the best time is placed approximately in center of course
    b. Slowest swimmer is placed in left outside working lane
    c. Swimmers with identical times are seeded by lot
    d. The second slowest swimmer is placed in left lane next to outside

14. Which of the following is a duty of the chief judge?
    a. Assist the inspector of strokes, turns and lanes in determining whether or not swimmers finish legally
    b. Check after substitutions have been made to be sure that no contestant has entered too many events
    c. Obtain the names of all entries prior to the meet
    d. Signal the referee to indicate when all finish judges are ready

15. In a dual meet, three of the four contestants entered in a particular event withdraw. What is the procedure?
    a. Fourth contestant is awarded first place and points without competing
    b. Fourth contestant must compete regardless of number of competitors
    c. Event is cancelled, no points awarded
    d. Fourth contestant must compete and is awarded points for the first three places

16. What is the fairest method of determining the order of finish in races where ample personnel are present to judge and time?
    a. Ballot system
    b. Timed-finals
    c. Finish judges and timers
    d. All of the above

17. Which is the correct order of strokes for the 200-yard medley relay?
    a. Backstroke, freestyle, breaststroke, and butterfly
    b. Breaststroke, backstroke, butterfly, and any stroke not already listed
    c. Backstroke, breaststroke, butterfly, and any stroke not already listed
    d. Butterfly, backstroke, breaststroke, and freestyle

18. When may a team *not* make a substitution?
    a. After entry forms are submitted
    b. After the meet has begun
    c. After the clerk of course has placed swimmers in places
    d. Within 15 minutes after meet is scheduled to begin

19. In a group meet, who determines the number of contestants a team may enter in each event?

a. Referee
b. Team coaches
c. Referee and other officials
d. Hostess school

20. In a group meet relay, there is a three-way tie for second place out of the six competing teams. How many points will each of the three teams receive?

a. 6
b. 7
c. 8
d. 10

21. Which would disqualify a swimmer in any event?

a. One false start
b. Two false starts
c. Stopping to rest in shallow water
d. Entering her fourth event

22. Which of the following is a duty of the starter?

a. Place the swimmers in the proper lane.
b. Order the recall rope dropped.
c. Disqualify a swimmer for two false starts.
d. Ask Judges and Timers if they are ready.

23. If the timer and place finish judge disagree on the order of finish, how is the order determined?

a. Place finish judge's decision takes precedence
b. Timer's decision takes precedence
c. By the chief timekeeper
d. By the referee

24. One of the four contestants in a race becomes tired and decides to quit when she sees that she is placing last. When she reaches the side of the pool, a teammate urges her to finish the race and she does. What is the correct decision?

a. She is disqualified for stopping to rest
b. She is disqualified for an illegal finish
c. She is disqualified for receiving coaching
d. She is awarded fourth place

25. Which contestant should be permitted to swim in any event?

a. Swimmer A, who has already won the diving event, swum in the 100 yd. butterfly race and swum on the medley relay
b. Swimmer B, who is a graduate student
c. Swimmer C, who is a substitute for a disqualified member of relay team
d. Swimmer D, who is wearing a two-piece bathing suit

ANSWERS AND RULE REFERENCES

Answer	*Rule Reference*
1. B	9:12
2. C	6:2
3. C	6:1
4. C	4:5b
5. B	6:3d
6. A	4:4
7. D	4:7
8. B	9:3c
9. A	9:5a
10. A	7:4
11. B	9:3p
12. B	4:11
13. D	4:2e
14. B	7:3
15. B	1:4
16. A	4:5b
17. C	4:11b
18. C	3:6
19. D	1:3b
20. C	6:3c
21. B	5:1b
22. B	Tech. Offic.-Starter 6
23. A	7:7
24. C	3:5
25. A	3:1, 2, 8, 10

Inquiries concerning the swimming study questions or examinations should be addressed to the chairman of the Swimming Examinations and Rating Committee: Carol Cooper, Physical Education- Women, Southern Illinois University, Carbondale, Illinois 62901.

TECHNIQUES FOR OFFICIATING SWIMMING AND DIVING

Revised by the SWIMMING PRINCIPLES AND TECHNIQUES OF OFFICIATING COMMITTEE

The following descriptions for swimming officials are intended to supplement the official rules. It is important, therefore, that both sources be consulted for a complete understanding of officiating responsibilities.

GENERAL PROCEDURE

1. Be sure of date, time, and place of the meet.
2. Arrive 30 minutes or more before the meet is scheduled to begin.
3. Introduce yourself to the coaches.

COSTUME AND EQUIPMENT

Costume

1. The official shirt with white shorts or skirt is the uniform for National Swimming Officials. All other swimming officials shall wear a white shirt and white shorts. A navy blue blazer may complete the uniform.
2. White tennis shoes and socks or rubber-soled shower sandals may be worn.

Equipment

Provided by the official:

1. *DGWS Aquatics Guide*
2. Clipboard and pencil
3. Whistle
4. Cap and/or dark glasses if the meet is held outdoors

Provided by the meet manager:

1. Pistol and blank cartridges
2. Stopwatch for each timekeeper
3. Forms for the referee and clerk of course, for the timekeepers and finish judges, and for the inspector of turns and lanes, to be used for assigning swimmers and divers to places and recording the results of each heat of each event
4. Worksheets for each event and a master scoresheet
5. Diving flash cards
6. Large scoreboard (chalkboard)
7. Numbers for drawing for lanes and diving order

8. Public address system or megaphone
9. Rope for recall or finish
10. Backstroke flags
11. Visual counters for individual events longer than 200 yards.

NOTE: *Award stand for 1st, 2nd, and 3rd place winners, photographer from campus paper, mimeograph paper for quick distribution of final results, an American flag, and a recording of our National Anthem should also be on hand for swimming meets.*

DUTIES OF OFFICIALS

Swimming Referee

The referee shall have final power to make decisions on all matters during the course of the meet, and no decisions shall be announced until she has authorized them. Her duties can be defined as those performed prior to the meet and those performed during the meet.

Preliminary duties

1. Obtain all entry forms for each event. Check each entry for the legal number of contestants for each team in each event and for the legal number of participations for each contestant in accord with Rule 3, Section 2 b, and Rule 9, Section 6 f, g, h.
2. After approving the entry lists, give the names of all entries for each event to the clerk of course.

NOTE: *The chief judge and clerk of course must be prepared to revise entries during the progress of the meet, if substitution is permitted prior to the time when swimmers are turned over to the starter.*

3. Make certain that there is a full complement of officials to handle the meet. When an insufficient number of officials is available, appoint the rated officials to act in more than one capacity.
4. Appoint and instruct all officials regarding their duties as covered by the rules and techniques of officiating.

NOTE: *Where an insufficient number of rated officials is available, the positions of lesser responsibility may be filled by students or staff who have received some training for their specific duties. Where finish judges, timekeepers, etc. have been appointed prior to the meet, it is suggested that the referee honor such appointments.*

5. Assist the clerk of course with drawing lane and heat assignments.
6. Check to be sure that all required equipment is provided.

Duties during the meet

1. At the beginning of each event, call, "Judges and Timers ready?" Signal by whistle that all officials and contestants are ready. Turn the contestants over to the starter by saying, "Madame Starter."
2. Stand on the opposite side of the pool from the starter. Assist the starter in deciding which contestant(s) shall be charged with false starts. She gives consent by silence if she agrees with the starter.
3. Immediately recall the contestants if an automatic or semi-automatic timing device fails to operate.
4. Disqualify a contestant or relay team for two false starts in a given heat.
5. Assist the inspector of turns and lanes in detecting violations of the rules. Report in writing, to the official scorer, any disqualified contestants or teams.
6. Notify qualified swimmers of the nature of the infraction immediately following the event.
7. Resolve all conflicting decisions among the judges.

If the timekeepers and finish judges disagree on the order of finish, the decision of the finish judge takes precedence over that of the timekeeper. The referee's decision is final.

8. Inspect and give final approval of the chief judge's report before sending the written report to the official scorer and announcer.
9. At the end of the meet, examine the worksheets and master scoresheet kept by the scorer. Check the computation of points awarded to each team. Sign the master scoresheet.
10. If a DGWS record is set, be sure the forms are completed properly.

Diving Referee

The referee shall have final power to make decisions on all matters during the course of the diving event(s), and no decisions shall be announced until she has authorized them.

Preliminary Duties

1. Draw the required dive on deck in the presence of the divers and coaches, if required by Rule 6, Sec. 2.
2. Obtain all diving entry forms. Check each entry for correct and complete listing of all dives. Consult with diver(s) to resolve any problems.
3. Assign the judges to their positions in accord with Rule 6, Sec. 3.
4. Supervise the draw for order of diving position in triangular, group, and championship meets.

5. Instruct the scorer and announcer of their duties as covered by the Rules and Techniques of Officiating.

Duties During the Meet

1. Signal the judges by whistle to flash their awards.
2. Supervise the computation of the diving score as indicated in Rule 6, Sec. 3.
3. Disqualify any diver not complying with Rule 6, Sec. 5b.
4. Declare a failed dive and refrain from calling for the judges' awards if the diver executed a dive other than that announced (a different numbered dive, not just a different position).
5. Determine if a balk, false start, or failed dive has occurred, and apply appropriate penalty in accord with Rule 6, Sec. 5.
6. Instruct the scorer to deduct two points from each of the judges' awards if there is a violation of Rule 6, Sec. 5i or 5e.
7. At the end of the contest, examine the diving scoresheets and confirm the final results by her signature on the meet scoresheet.

Clerk of Course

The clerk of the course shall--

1. Obtain the names of all contestants for each event from the referee; at least five minutes before the event shall be started she must give the swimmers notice to appear at the starting mark.
2. If necessary, have the contestants draw by lot for starting positions, after which they shall be turned over to the referee.
3. Notify the chief judge of any changes from the original list provided by the referee.
4. Be responsible for placing the contestants immediately behind the starting line at the proper time for each event.

Announcer

The announcer shall be provided by the meet manager with worksheets for each event. Worksheets shall contain an accurate listing of all contestants and their team affiliations.

1. Before each swimming event, announce the event, the heat, and the name and team affiliation of each swimmer in each lane.
2. As the contestants are assembling for one event, announce the next event as a warning to the next swimmers to be "on deck."
3. Promptly after the finish of each preliminary heat, and following the final heat of each event, announce the results as provided by the referee for the scorer and announcer.
4. In the diving competition, before each dive announce the name of the contestant, the name of the dive, the position in

which the dive is to be executed, and the degree of difficulty. If a forward standing take-off is to be used, this shall also be announced.

5. On completion of the dive announce the points awarded by each judge and the total points earned for the dive.
6. Make any other announcements requested by the referee, chief judge, clerk of course, or team advisors.

NOTE. *A good announcer can make the meet interesting and thus popularize the sport by establishing close audience contact through good voice, clear enunciation, and a little "showmanship."*

Starter

The starter shall have full control of the contestants from the time they have been turned over to her by the referee until the race is properly underway.

1. Prior to the first event, instruct the swimmers as to the starting and recall signals to be used.
2. Stand in a position seen easily by the competitors and the timekeepers, within ten feet of the starting edge of the pool. During the freestyle, breaststroke, and butterfly stroke starts, stand on the side deck of the pool; during the backstroke start, stand to one side on the end deck of the pool.
3. Instruct the swimmers concerning the distance to be covered, location of the finish, name of the event, and stroke or strokes to be used and (where applicable) in what order.
4. Wait for acknowledgment of readiness of the officials from the referee before giving the command, "Take your marks." Hold the cocked pistol overhead, preferably in the hand toward the timekeepers so that they clearly see the flash.
5. Get all swimmers onto as fair a start as possible. Starts should not be tricky in timing, nor should they be given in a regular, rhythmical pattern. The starter shall hold her starting signal until all swimmers have assumed stationary positions. Swimmers may assume any starting position, provided they are on balance.
6. On a false start, order the recall rope dropped as soon as the pistol or whistle signal is given for the recall. Release other contestants with the command "Stand-up" when a false start has occurred. Two false starts disqualify a contestant or relay team. The referee will officially disqualify contestants.
7. Immediately recall the contestants if an automatic or semi-automatic timing device fails to operate.
8. Start a race without a contestant, if, in the opinion of the starter, a contestant is deliberately delaying the start of a race.

9. When using a pistol the starter must have at least three good cartridges in her pistol before starting a race. A snap cap or accidental shot shall be no start.
10. In case the pistol is not properly discharged, all contestants shall be recalled by the starter firing a second pistol shot or blowing a whistle.
11. When the pistol is properly discharged and any contestant or contestants shall have obtained an unfair advantage at the start, all contestants shall be recalled by the starter firing a pistol shot or blowing a whistle, and the starter shall indicate the contestant or contestants who shall be charged with a false start.
12. In individual events longer than 200 yards, discharge the pistol when the leading swimmer has two lengths plus five yards to swim.

NOTE: *A rope may be stretched across the pool approximately 25 feet from the starting blocks for the purpose of recall.*

Inspector of Turns and Lanes

The inspector of turns and lanes is responsible, with the referee, for noting infractions of the rules during the speed events. She should take her position on the opposite side of the pool from the referee.

1. At the start of the race, take a position about one-quarter of the way down the side of the pool to check violations following the start. This applies particularly to races involving the breaststroke and butterfly stroke.
2. Move down the pool with the swimmers to observe lane interference.
3. Reach the end of the pool before the leading swimmer comes in for her turn to determine that all regulations regarding turns are observed.
4. Return to the finish line to check all swimmers for conformity to rules regarding the touch at the finish and adherence to the form of the stroke until the touch is made.
5. During relay races take a position so that any illegal starts after the original start can be seen.
6. When an infraction occurs, immediately raise one hand overhead using fingers to indicate the lane number in which the violation occurred.
7. Keep a written record of rules violations in the lanes, the turns and the finishes, listing the lane number, lap number (in relays) and the violations in accord with Rule 4 Sections 6 through 16.
8. Immediately after the finish of each race, give the written report to the referee.

NOTE: *Although the referee assists whenever possible in noting infractions of the rules, the task confronting the inspector of turns and lanes cannot be managed with top efficiency by one person. There should be an inspector for each lane if possible. It is suggested that one or two of the experienced officials not involved with duties during the race be used as assistants. For example, the starter and diving judges can conveniently be assigned. They report violations to the inspector of turns and lanes, who includes them in her report to the referee. Inspectors should be absolutely positive a fault has been made before disqualifying a swimmer.*

Chief Judge

1. The chief judge is responsible for all substitutions occurring during the course of the meet.
2. Check after substitutions have been made to insure that no one participates in more than four events.
3. Determine the official order of finish on the basis of written reports received from referee (disqualified contestants), finish judges, and chief timer (official time for each contestant).

Finish Judges

The finish judges shall determine the order in which the contestants finish. They *shall* not serve as timers in the same race.

1. In place judging, follow procedures in Rule 8, Sec. 7a.
2. In lane judging, follow procedures in Rule 8, Sec. 7b.
3. Take positions on each side of the pool in line with the finish. Judges must have an unobstructed view of the course and the finish line.
4. Watch the finish line from the time the leading swimmer enters the last lap of the race. Judges should not follow swimmers to the finish, but should watch the wall for the touch or the rope for the glide under it.
5. At the conclusion of each race, give a written report of the choice of finish to the chief judge. Report shall include place, event, heat number, lane number of the swimmer who placed, and the swimmer's name.

Take-off Judges

1. The take-off judge for each relay shall station herself in such a position that she can hold her hand in contact with the foot of each contestant (after the first one) and at the same time see the end of the pool. She shall judge whether the feet of the contestant lost contact with the starting surface before the preceding swimmer touched the end. The penalty for illegal starting shall be disqualification. When a disqualification occurs, immediately raise one hand overhead using fingers to indicate lane number.

NOTE: *An honor system for relay take-offs may be used for all meets.*

2. They shall report disqualification to referee, making written note of swimmers lane and lap number.

Chief Timekeeper [1]

The chief timekeeper shall be responsible for the official recording of all times (including those of disqualified contestants) and for proper assignment of timekeepers. Timekeepers shall not serve as finish judges in the same race.

1. Examine the watches to see that each is properly wound and that all are synchronized. Bar from use any watch which is consistently off when tested by several timers. All watches shall indicate tenths or hundredths of seconds.
2. Assign timekeepers and alternates to lanes.
3. Appoint a head timer of each lane when timers are assigned to lanes. Act as head timer of first place.
4. Instruct each timekeeper to start her watch instantly on the flash of the starter's pistol and to stop her watch simultaneously with the finish, above or below water. If her watch does not start or operate properly she should raise her hand immediately to attract an alternate timekeeper.
5. Read all watches. Should watches disagree, follow procedures in Rule 8, Sec. 6b.
6. At the conclusion of each heat or final event, compile the reports of the head lane timers and send them to the chief judge. All reports shall include the event, heat number, lane number of the swimmer, swimmer's name, and the time. When watches are used record each of the three times with the official time recorded separately in a space provided. When automatic or semi-automatic devices are used record the time in the space provided for official time.
7. Signal timekeepers to clear their watches. Instruct timers to stand at the end of pool by their assigned lane, or at side in line with finish if rope is used.

Head Lane Timekeeper

1. Read all watches on her lane.
2. In case of difficulty or discrepancy in reading watches, consult the chief timekeeper.
3. Complete a written report showing the event, heat number, lane number of the swimmer, swimmer's name and the times.

[1] For the qualifying heats of a group meet, it is strongly recommended that a sufficient number of watches be made available so that each lane can be timed by three official timekeepers.

Timekeepers

1. Must have an unobstructed view of the starter, the course, and the finish line.
2. Shall make no anticipatory arm or body movements in the process of starting or stopping the watch. Use only finger pressure on the watch stem at the actual start and finish of the race.
3. Promptly report times to the head lane timekeeper and present watches for inspection of time if requested.
4. Should not be concerned with the legality of the touch at the finish.
5. Should only take split times when this is an assigned duty.

Scorer

The scorer shall be provided with worksheets for each event and a master scoresheet for the meet by the meet manager. Worksheets shall contain an accurate listing of all contestants and their team affiliations.

1. After each race as the written reports from the chief judge and any disqualifications from the referee are received, enter the results on the worksheets.
2. When all results are in for an event, note the placing of the contestants and award points in accordance with the official rules (Rule 6, Sec. 3, and Rule 7).
3. As the final results of each event are determined, prepare a statement for the announcer. This statement shall include the name of the winner of each place, her team affiliation, and point(s) awarded; also, the total number of points won by each team in the event.
4. Enter the final results of each event on the master scoresheet.
5. The duties of the scorer during the diving events are fully described in the official rules (Rule 6, Sec. 3). Compute and record diving results. Sheets should be checked and signed by diving referee.
6. At the end of the meet, assist the referee in checking the worksheets and master scoresheet. Sign the master scoresheet.

NOTE: *If the ballot system is used, the scorer receives, in writing, the winner and places of each event from the chief judge. The appropriate ballot value is then recorded in accord with Rule 4, Sec. 5b, c.*

Runner

1. "Run" written results from all timers and judges to the chief judge and from the referee to the official scoring table.

ADDITIONAL SUGGESTIONS

A full complement of officials will facilitate the most efficient management of a meet. However, with careful planning, it is possible to carry out all official duties if the rated and better trained officials act in more than one capacity. For example, the referee can assume the duties of the diving referee. The starter and inspector of turns and lanes can double as diving judge. When a fourth experienced official is not available to assume the duties of the third diving judge, the referee may act in dual capacities of diving referee and judge.

To expedite time and efficiency in a group meet, it is suggested that lane numbers be drawn before the meet.

If the ballot system is used, three official timers and two lane judges shall be assigned to each lane.

ANNOUNCEMENT

The 1972 DGWS Swimming and Diving Championships will be held at the University of Cincinnati in March.

COMMENTS ON RULES CHANGES

The continued growth of girls and women's swimming teams has stimulated increased interest in changing the DGWS aquatics rules to meet the needs of high school and college women. The Official Rules for DGWS Swimming Meets have been changed as a result of the suggestions from coaches and officials as well as the problems which came to light through requests for interpretation of the Rules. A sample of coaches and officials was polled to guide the Rules Subcommittee in its deliberations. The major changes are as follows:

Rule 1: Because many new 25-meter pools are being built, provision has been made to recognize events in these pools. Longer events have been added for all pools – 400 and 800 freestyle and 400 individual medley, and 800 freestyle relay. The three stroke medley relay and individual medley events have been deleted as official events and records. However, these events may be swum as modifications of the rules by those teams which find that these events meet their needs.

A recommended order of events has been included, and provision is made for modifying this order of events if diving is omitted or if all teams do not have 3-meter diving facilities.

The number of entrants per team in dual meets held in pools with six or more lanes has been increased.

Rule 2: This rule has been rewritten to coordinate with the Application for Record and to clarify the status of records made in meets using completely automatic judging and timing equipment.

Rules 4 and 5: There has been extensive reorganization in these Rules to separate rules governing the swimming of the events from those specifying the conduct of the events.

Rule 4: The backstroke has been reworded to clarify the starting grip and the turn. In the breaststroke and butterfly events, the word "symmetrical" has been deleted. This reflects current thinking that few, if any, swimmers perform these strokes in a wholly symmetrical manner. The degree of variation from symmetrical has been a problem for the judges, and a source of inequity. We have followed the NCAA lead in rewording the turn for these strokes.

Rule 5: Lane assignment has been provided for double dual meets. A double dual meet would involve three teams, each swimming two dual meets simultaneously.

In seeding, provision is made for handling entry times to tenths and hundredths of a second. Seeding when only two heats are involved is clarified.

The official time and official order of finish are spelled out in detail for human, semi-automatic, and completely automatic equipment.

Counters are specified for the new longer events.

Rule 6: Scoring for consolation and championship finals has been adapted to the number of lanes in the pool.

The point at which the score becomes official has been made explicit in response to numerous requests.

Rule 7: The duties of the officials have been revised to handle automatic officiating equipment and the longer events.

Rule 8: The recommended program for a three-day meet has been expanded to include more of the longer events.

Rule 9: The championship diving event has been expanded to an 11 (eleven) dive contest in line with other major diving events. Minor changes have been made in point awards and the judges award table to stay consistent with NCAA rules.

Official Rules for DGWS Swimming Meets 1971-1973

A star (★) appears before each section which contains a change.

RULE 1. EVENTS

Section 1. Official events recommended for competition are as listed:

★ **a. Relay events**

25-meter pools	25-yard pools	20-yard pools
100-, 200- or 400-meter medley relay	100-, 200- or 400-yard medley relay	80- or 160-yard medley relay
100-, 200-, 400- or 800-meter freestyle relay	100-, 200-, 400- or 800-yard freestyle relay	80- 160- or 800-yard freestyle relay

★ **b. Individual events**—freestyle

25 meter pools	25-yard pools	20-yard pools
25 meters	25 yards	20 yards
50 meters	50 yards	40 yards
100 meters	100 yards	100 yards
200 meters	200 yards	200 yards
400 meters	400 yards	400 yards
800 meters	800 yards	800 yards

★ **c. Individual events**—breastroke, butterfly and backstroke

25-meter pools	25-yard pools	20-yard pools
25 meters	25 yards	20 yards
50 meters	50 yards	40 yards
100 meters	100 yards	100 yards
200 meters	200 yards	200 yards

★ **d. Individual events** – individual medley

25-meter pools	25-yard pools	20-yard pools
100-, 200- or 400-meters	100-, 200- or 400 yards	80- or 400-yards

★ **e. Individual events** – diving. (See Rule 9).

25-meter pools	25-yard pools	20-yard pools
1-meter diving	1-meter diving	1-meter diving
3-meter diving	3-meter diving	3-meter diving

★**Section 2.** The hostess school, with the approval of the other schools, shall select the distances for the swimming events, the diving program, and the order of events with consideration given to the skill level of the competing schools and the time available for the meet. One of the following orders of events is recommended.

a.	b.	c.
400 or 160 medley relay	200 or 160 medley relay	100 or 80 medley relay
400 freestyle	200 freestyle	100 freestyle
400 individual medley	200 or 80 individual medley	100 or 80 individual medley
100 backstroke	50 or 40 backstroke	25 or 20 backstroke
100 breaststroke	50 or 40 breaststroke	25 or 20 breaststroke
100 freestyle	50 or 40 freestyle	25 or 20 freestyle
1-meter diving	1-meter diving	1-meter diving
100 butterfly	50 or 40 butterfly	25 or 20 butterfly
200 freestyle	100 freestyle	50 or 40 freestyle
200 backstroke	100 backstroke	50 or 40 backstroke
800 freestyle	400 freestyle	200 freestyle
200 breaststroke	100 breaststroke	50 or 40 breaststroke
3-meter diving	3-meter diving	3-meter diving
800 freestyle relay	400 or 160 freestyle relay	200 or 160 freestyle relay

If diving is omitted, a 15 minute rest period shall be substituted.

If either team does not have 3-meter diving facilities, the diving event shall be as follows:

If the diving event is Diving C, the first diving event shall be Diving C, and a 15 minute rest shall be substituted for the second diving event.

If the diving event is Diving B, the first diving event shall be 3 required dives (101, 201, 5111). The second diving event shall be 4 optional dives each from a different group.

If the diving event is Diving A, the first diving event shall be 5 required dives (101, 201, 301, 401, 5111); the second event shall be 5 optional dives each from a different group.

If the diving event is Championship, it shall be conducted as usual.

Section 3. Teams may enter each event as follows:

★ a. In dual meets held in pools less than 6 lanes in width, each team shall be limited to two contestants in individual events, and one relay team for each relay. In dual meets held in pools with 6 or more lanes, each team may have three contestants swim in individual events, but only two contestants from each team

may score. Two divers per diving event and one relay team per relay event may be entered. In triangular meets held in pools with 6 or more lanes, each team shall be limited to two contestants in individual events, and one relay team for each relay. Triangular meets held in pools less than 6 lanes in width shall be considered group meets as far as entries are concerned.

★ b. In group meets, the hostess school shall determine the number of entries for each team. The hostess school shall indicate the number of contestants who may be listed for each relay team, any four of whom may compete.

Section 4. Should two or more contestants enter an event and, later, all but one withdraw, that one contestant shall compete.

Section 5. In group swimming meets, where preliminary heats are held to determine the finalists, the number of lanes in the pool shall determine the minimum number of final contestants.

Section 6. In group swimming meets, where timed finals are held, either the number of lanes in the pool shall determine the number of places which shall be scored, or the twelve-place scoring system shall be used.

Section 7. Finalists for diving events shall be determined in accord with Rule 9.

RULE 2. RECORDS

★Section 1. Two sets of records will be registered with DGWS–one set made in intramural and interscholastic competition by high school age girls and one set made in intramural and intercollegiate competition by college age women.

★Section 2. All records must be made in intramural, interscholastic or intercollegiate meets open to spectators. Records may be made in preliminary heats, swim-offs, finals, or timed finals. Under no conditions may time trials be submitted. No records may be made in meets conducted under other than DGWS rules.

★Section 3. Meets in which record-times will be officially recognized shall be conducted in strict accord with the official DGWS rules, including the following conditions:

★ a. The events shall be only those listed for pools of that length in Rule 1 which are in accord with the provisions of Sections 4 and 5 of Rule 2.

b. The performance must be achieved in a race started by a pistol shot.

★c. The record time shall be recorded to tenths or hundredths based on three watches or semi-automatic timing devices, or on a completely automatic timing device, whichever is the official time. If the time achieved on an automatic timing device is recorded to thousandths, it shall be converted to hundredths according to the following formula: any time of 5 thousandths or below reverts to the lower hundredth, i.e., 58.155 becomes 58.15; any time of six thousandths or more moves upward to the next higher hundredth, i.e., 58.156 becomes 58.16.

d. The starting platforms shall not exceed 30 inches in height above the water surface. The top may be sloped, not to exceed 10 degrees from the horizontal toward the pool, or may be flat. Firm starting grips flush with the end of the pool, and no higher than 30 inches shall be used for backstroke starts.

★**Section 4.** Twenty-yard course records must be made in pools not less than 20 yards in length but less than 25 yards long. Short Course records must be made in pools not less than 25 yards in length but less than 25 meters in length. Twenty-five-meter records must be made in pools not less than 25 meters in length but less than 50 meters in length.

★**Section 5.** Institutions having pools not measuring exactly twenty-yards, twenty-five yards, or twenty-five meters may not record official times for the relays.

★**Section 6.** Applications for records must be submitted to the chairman of the DGWS Aquatics Committee within ten days following the performance.

a. Application must be made on forms similar to that which is prescribed in the current issue of the DGWS *Aquatics Guide.*

★b. The application must contain the following information. date of application, full name of contestant, nature of record (DGWS High School Swimming Record or DGWS Collegiate Swimming Record; 25-Meter Course, Short Course or 20-Yard Course), school or college the contestant represents and its location, name of event and distance, time achieved, nature of timing device(s) (stopwatches, semi-automatic devices, completely automatic equipment), name and address of pool in which the event was swum, actual measurements of the pool, and date of the meet.

★c. The application mu contain the signatures of the Referee, Starter, two Finish J ges, and three Timers. If the official time is established by cor etely automatic equipment, the timers signatures may be t Chief Timer, machine operator, and

recorder, or the signatures of the timers responsible for secondary information.

★d. Engineer or surveyor's certificate attesting measurement of the pool (indicating feet, inches, and fractions of an inch) must accompany the application or be on file with the DGWS Aquatics Committee.

e. Jeweler's certification attesting to synchronization of the watches recording the achieved time must accompany the application. The date of synchronizing must be within a twelve-month period preceding the performance.

RULE 3. CONTESTANTS

Section 1. All undergraduate women students officially enrolled on a full-time basis in their school, college or university, and meeting the eligibility requirements of their respective institution, should be permitted to swim for their school in extramural competition. In extramural competition, all participants must have amateur status.

Section 2. No contestant shall participate in more than four different swimming events. Four events shall be interpreted as two relay events and two individual events or one relay event and three individual events. The contestant is considered to have participated in any event from which she has been disqualified for any rule violation.

a. Participation in more than four events shall result in disqualification from those additional events.

b. A contestant who enters more than four events shall be requested to indicate the event(s) from which she wishes to withdraw before participation in order to comply with this rule.

Note: In three-day championship meets, an individual may enter five events as indicated in Rule 8, Section 6h.

Section 3. No contestant may swim more than one distance of any relay.

Section 4. Each contestant shall report promptly to the clerk of course when called prior to each event in which she is entered.

Section 5. There shall be no coaching of contestants from the time they are turned over to the starter until the race is finished.

Section 6. The deadlines for entries and substitutions shall be determined by the hostess school and included in the information sent to the participating schools. Under no circumstances shall substitution be allowed for any contestant after the swimmers have been placed at their starting positions by the clerk of course. It is

recommended that in dual meets changes in entries may be made until the contestants have been placed at their starting positions by the clerk of course.

Section 7. No substitution may be made for a contestant disqualified for false starts.

Section 8. No substitution for a disqualified contestant may be made in the event in which the disqualification occurred.

Section 9. No contestant is permitted to wear or use any device to help her speed or buoyancy during competition.

Section 10. Contestants shall be appropriately attired in non-transparent one-piece suits for all swimming and diving events.

Section 11. If a team is not ready 15 minutes after the scheduled starting time of the first event, that team shall forfeit the meet to its opponents, score 1-0. In group meets, any team not ready 15 minutes after the scheduled starting time of the first event shall be disqualified from the meet.

RULE 4. RULES FOR SWIMMING THE EVENTS

★Starts

Section 1. Official Start

a. The referee signals by whistle that all officials and contestants should be ready, gives all necessary instructions and turns the contestants over to the starter.

b. Forward Start – In all swimming races with the exception of backstroke, each contestant shall stand erect with both feet on the starting mark in readiness to assure a starting position. Upon the command, "Take your mark!" she shall assume any desired starting position (grasping the starting blocks is permissible) provided she holds a steady balance for an appreciable length of time. When the starter sees that the contestants are completely motionless, she starts the race with the pistol shot.

c. Backstroke Start – In the backstroke start, each contestant shall line up facing the starting mark with both hands grasping the starting grips (this to include the end of the pool or any part of the starting block) and with both feet in contact with the end of the pool. Upon the command "Take your mark!" she shall assume any desired starting position which does not remove her completely from the water, nor her hands from contact with the end of the pool. When the starter sees that the contestants are completely motionless, she starts the race with the pistol shot.

d. False Starts–

1. All contestants leaving their marks before the pistol is discharged shall be charged with a false start. All other contestants must immediately be released by the starter with the command "Stand Up."
2. The command "Stand Up" allows the co: .estant in the forward start to stand up or step off the block. Any contestant entering the water shall be charged with a false start.
3. In the backstroke start the contestants are released from their starting positions by the command "Stand Up," but must remain in the starting area.
4. When the pistol is discharged and one or more contestants has obtained an unfair advantage, all contestants shall be recalled at once by a second pistol shot or whistle by the referee or starter. The starter and/or the referee shall then indicate the contestant or contestants, if any, to be charged with a false start.
5. A contestant who unnecessarily delays in assuming and holding a completely motionless starting position after the command "Take your mark" should be charged with a false start.
6. Any contestant responsible for an unnecessary delay after the referee's whistle shall be charged with a false start.
7. Any contestant charged with two (2) false starts must be disqualified and shall not swim the event.
8. If a semi-automatic, or completely automatic timing device fails to start, the recall signal will be used to stop the race.

Swimming the Events

Section 2. Breaststroke

a. Start–The forward start, in which the contestant is on her starting mark, shall be used. Swimming under the surface of the water is prohibited except for one arm stroke and one leg kick after the start and each subsequent turn. The surface of the water is defined as that of the pool in a calm state. A wave passing over the head does not constitute a disqualification provided that part of the swimmer's head is above the calm surface.

★b. Stroke – Both hands must be moved forward simultaneously on or under the surface of the water and brought backward simultaneously. The body must be kept perfectly or the breast, with both shoulders in the horizontal plane.

★c. Kick – The legs must be drawn up with the knees bent and apart. The movement shall be continued with a rounded outward sweep of the feet, bringing the legs together. Up and down movements of the legs in the vertical plane are prohibited. Breaking the water surface with the feet shall not merit disqualification unless caused by movement of the legs in a vertical plane. All movements of the legs and feet must be simultaneous, and in the same horizontal plane. no sidestroke (scissors kick) movement shall be permitted.

★d. Turns and Finish – When touching at each turn, the touch shall be made with both hands simultaneously. It is permissible on a turn to drop a shoulder after the final pull and prior to the touch. Once a legal touch has been made, the contestant may turn in any manner desired, but the prescribed form must be attained before the feet leave the wall in the push-off. On the finish the touch must be made with both hands simultaneously and on the same level.

Section 3. Butterfly

a. Start–The forward start, in which the contestant is on her starting mark, shall be used. After the start and each subsequent turn, the swimmer is permitted one or more leg kicks but only one arm pull underwater, which must bring her to the surface.

★b. Stroke–Both arms must be brought forward together over the water and brought backward simultaneously. The body must be kept perfectly on the breast and both shoulders in a horizontal plane.

★c. Kick–All up and down movements of both legs and feet must be simultaneous and may not be of an alternating nature. No sidestroke or breaststroke kicking movement may be used.

★d. Turns and Finish–When touching at each turn the touch shall be made with both hands simultaneously. It is permissible on a turn to drop a shoulder after the final arm pull and prior to the touch. Once each legal touch has been made, the contestant may turn in any manner desired, but the prescribed form must be attained before the feet leave the wall in the push-off. On the finish that touch shall be made with both hands simultaneously, on the same level.

Section 4. Backstroke

★a. Start—The backstroke start shall be used.

b. Stroke—The competitor shall push off on her back and continue swimming on her back throughout the race.

★c. Turns and Finish—The competitor must not turn her hips over beyond the vertical toward the breast before the foremost hand has touched the end of the pool for the purpose of turning or finishing. It is permissible to turn over beyond the vertical after the touch for the sole purpose of executing the turn, but the swimmer must have returned past the vertical toward a position on the back before the feet have left the wall.

Section 5. Freestyle

a. Start—The forward start, in which the contestant is on her starting mark, shall be used.

b. Stroke—Any swimming stroke, usually the crawlstroke, may be used except as specified in the medley relay and individual medley events.

★c. Turns and Finishes—The hand touch is not required at the turn or finish; it is sufficient if any part of the body touches the end of the pool or course.

Section 6. Individual Medley

a. The competitor shall swim the prescribed distance in the following order: the first one-fourth, butterfly, the second one-fourth, backstroke, the third one-fourth, breaststroke, and the last one-fourth, any stroke other than the three already mentioned.

★b. Rules pertaining to each stroke used shall govern where applicable.

Section 7. Relays

a. Freestyle relays—Four competitors on each team, each shall swim one-fourth of the prescribed distance using any desired stroke or strokes but usually the crawlstroke.

★b. Medley relays—Four competitors on each team, each shall swim one-fourth of the prescribed distance in the following order: first, backstroke; second, breaststroke; third, butterfly; and fourth, any stroke other than those already mentioned. Rules pertaining to each stroke used shall govern where applicable.

c. No competitor shall swim more than one distance of any relay race.

★d. A competitor, other than the first swimmer on each team, shall not start until her teammate has concluded her distance.
A competitor, whose feet have lost touch with the starting mark before her preceding teammate touches the wall, shall be disqualified. The honor system for relay takeoffs may be used for all meets, except the National Intercollegiate Championship Meet.

Finishes

★**Section 8.** Finish rules for all strokes—In all swimming races each contestant shall have finished her race when she has covered the prescribed distance and any part of her person touches the solid wall at the end of the pool or course, at or below water level except that.

a. In breaststroke and butterfly, the contestant must comply with the finish requirements for the stroke as defined under the rules for that stroke, and

b. If automatic officiating equipment is used, each contestant must touch the touchplate or pad at the end of the pool or course to have finished her race.

Additional Rules Applying to All Strokes

Section 9. A contestant shall not, during the course of the race, push off from the bottom, sides or ends of the pool (except for the completion of a legal turn) or use the lane markers to gain additional momentum. She may rest on the sides or bottom of the pool without moving toward the finish line.

Section 10. A contestant shall not touch another swimmer or impede her progress. Should a foul of interference endanger the success of a contestant that contestant may be allowed to compete in a succeeding round (or heat), the violator subject to disqualification. Should the foul occur in a final event, that event may be rerun.

Section 11. Any contestant or relay team shall be disqualified if a teammate or team representative shall jump into the pool before all other contestants have finished that race.

Section 12. Any contestant not entered in a race who enters the pool course in the area in which said race is being conducted before all other contestants have finished the race shall be disqualified from her next scheduled competition in that day's session.

★**Section 13.** A contestant shall be disqualified if after leaving the water at the end of the race she reenters the water without the Referee's approval.

Disqualifications

Section 14. A contestant shall be disqualified:

a. For infractions of Rule 3, Sections 1, 2, 3, 5, 6, 7, 8, 9, and 10
b. For two false starts
c. For infractions of Rule 4, Sections 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, and 13.
d. For not finishing the race or distance of a relay event.

Section 15. The relay team in which one or more members are disqualified shall be disqualified for that event.

Section 16. A contestant may be disqualified, at the referee's discretion, for infractions of Rule 4, Section 10.

Section 17. In the event of an infraction resulting in disqualification, the referee shall notify the disqualified swimmer of the nature of the infraction immediately following the event.

RULE 5. CONDUCT OF THE EVENTS

Seeding and Lane Assignment

★**Section 1.** In dual meets the visiting team shall have its choice of either half of the pool. In double, dual or triangular meets, the assignment of lanes shall be by lot, with teams swimming in lanes 1 and 4, 2 and 5, and 3 and 6. Once made, these choices apply to all swimming events on the program.

Section 2. In group meets, drawing by lot or the seeding method shall be used for assigning heats and/or lane positions.

a. When using the drawing by lot method, all contestants in the event shall report to the clerk of course immediately upon call. The lot drawn by the contestant shall indicate her heat and lane assignment.

★b. When using the seeding method for preliminary heats, the best competitive times of all entries shall be submitted no later than the deadline set by the hostess school. These times shall be listed in order with the fastest time first and the slowest last. Submitted times to tenths or hundredths of a second (one or two decimal places) shall be listed and compared exactly as submitted, i.e., submitted times of 56.2, 56.25, and 56.3 will be listed in that order. No rounding-off shall be permitted. Identical times shall be assigned places in the list by draw. Contestants with no submitted times shall be placed at the end of the list by draw.

★In two heats—the fastest shall be placed in the second heat, the second fastest in the first heat. The third fastest shall be placed in the second heat, the fourth fastest in the first heat, and so on.

★In three heats—the fastest shall be placed in the third heat, the second fastest in the second heat, the third fastest in the first heat. The fourth fastest shall be placed in the third heat, the fifth in the second heat, the sixth in the first heat, the seventh in the third heat, and so on.

In four heats or more—the *last* three heats shall be seeded as described in the preceding paragraph. The heat preceding the last three heats shall consist of the next fastest swimmers, the heat preceding the last four heats shall consist of the next fastest swimmers, etc.

c. When using the seeding method for timed finals, the fastest times shall be placed in the last heat, the next fastest times in the next to the last heat, etc.

★d. There shall be a minimum of three competitors or relay teams seeded into any preliminary or timed-final heat, but subsequent circumstances may reduce the number of competitors to less than three. In timed finals or preliminaries with more than three heats, a full complement of entries shall be seeded in all heats, starting with the fastest. Whenever this results in less than three seeded entries in the first heat, the slowest seeded in the second heat shall be moved into the first heat so that no heat has less than three seeded entries.

e. When using the seeding method for lane assignments, in any heat or final, the slowest of the contestants in that particular race shall be assigned to the left outside working lane (swimmer's left, at the starting mark facing the pool) and the next slowest in the right outside working lane, then alternating left and right until the swimmer with the best time is in the approximate center of the course, regardless of the number of lanes. Lane assignment in finals shall be based on times achieved in the preliminary heats.

If any competitors in the same race have identical times, their respective lanes shall be determined by lot.

The order of lane assignments for contestants (fastest to slowest) shall be:

4-lane pool—lane 2, lane 3, lane 1, lane 4
5-lane pool—lane 3, lane 2, lane 4, lane 1, lane 5
6-lane pool—lane 3, lane 4, lane 2, lane 5, lane 1, lane 6
7-lane pool--lane 4, lane 3, lane 5, lane 2, lane 6, lane 1, lane 7
8-lane pool—lane 4, lane 5, lane 3, lane 6, lane 2, lane 7, lane 1, lane 8

f. If a swim-off is necessary to determine the qualifiers for a final event, those finalists not involved in the swim-off shall occupy the lanes first in seeding order.

g. There shall be no trading of lanes or heats.

★h. In the event that a swimmer has qualified for the finals, consolation finals, or championship finals, and then withdraws, is barred, is injured, or is ill at the beginning of this session and is unable to compete in the event for which she qualified, the referee shall fill the event when possible with the next qualified competitor(s).

Swim-Offs

★**Section 3.** When a tie in qualifying must be resolved to determine who swims in finals, consolation finals, or championship finals (not just which lane the swimmer is in), a swim-off shall be held. In case of disputed qualifications, all contestants having times tied with, or within the disputed times shall participate in a swim-off for the unfilled positions.

a. Assignment to swim-off heats and lanes shall be by lot.

b. A swim-off is considered to be part of the total preliminary process of qualifying for the finals. *Exception:* In the case of disqualification in a swim-off, the disqualified competitor is relegated to the lowest qualifying position for which he is competing. In the case of a swim-off for the 12th position, the competitor disqualified is eliminated from the consolation final. If the disqualifications leave a vacancy for the full complement of finalists, swim-offs shall be continued among the disqualified contestants until a full complement of finalists is assured.

c. A swim-off may be held at any time set by the referee not later than 45 minutes after the last heat of the last event in which any one of these contestants is competing in that session. A contestant involved in a swim-off shall not be required to swim with less than 25 minutes rest between the swim-off and any of her regularly scheduled races.

Official Time

★**Section 4.** The official times shall be determined by one of the following methods (a. or b.):

a. When human and/or semi-automatic timing devices are used:

1. Watches or semi-automatic timing devices shall be started with the starter's gun and shall be stopped simultaneously with the finish.

2. Watches recording to tenths shall be read to the nearest tenth. Watches recording to hundredths shall be read to the nearest hundredth. Semi-automatic timing equipment shall be read to the maximum decimal reading.
3. If two or three times agree, that time shall be official. If all three times disagree, the intermediate time shall be official. If only two times are available, the average of the two times shall be official except when this results in a time in thousandths. If an average results in a time in thousandths of a second, it shall be rounded to the next slower hundredth.
4. Times from an alternate watch or timing device may substitute for an assigned timer only in the event of failure of a watch or semi-automatic timing device, or its operator.

b. When completely automatic equipment is used:
1. The completely automatic equipment will be automatically started by the starter's gun, and stopped by the swimmer activating the finish pad or switching device, and will provide both timing and judging information.
2. Completely automatic equipment (primary information) will be backed up by semi-automatic timing devices or watches (secondary information).
3. The official time for a swimmer having a primary time shall be that time (to maximal decimal reading).
4. The official time for a swimmer not having a primary time shall be the secondary time determined according to the procedures given in a. above.

Official Order of Finish

★**Section 5.** The order of finish when all contestants compete simultaneously (i.e., within one heat as in a dual meet, consolation final, championship final, or final) shall be determined by one of the following methods (a, b, or c):

a. When place judging is used, the finish judges decisions determine the order of finish after disqualified contestants are eliminated. If a discrepancy exists between the order of finish as shown by the finish judges report, and that shown by the official times, the finish judges' decision shall take precedence. Further discrepancies shall be resolved by the Referee.

b. When lane judging is used, whether strictly human or semi-automatic, the ballot system shall be used to determine the order of finish. Two lane judges' decisions and an official time

are required for each lane. Ballot values are assigned as follows 1 point for fastest time, 2 points for second fastest time, etc. Equal ballot values for identical times. Also, 1 point for the first place selection, 2 points for second place selection, etc. The disqualified contestants are then eliminated and the order of finish is determined by adding the numerical value of the three ballots for each contestant. The contestant with the lowest numerical total shall be first, the second lowest shall be second, etc. If these totals result in a tie for any place, the tie shall stand.

c. When completely automatic equipment is used:
   1. The completely automatic equipment will be automatically started by the starter's gun and stopped by the swimmer activating the finish pad or switching device, and will provide timing and judging information.
   2. Completely automatic equipment (primary information) will be backed up by a secondary information system either human or semi-automatic.
   3. If completely automatic equipment provides complete information for all swimmers in the race, the primary place shall be the official order of finish.
   4. If completely automatic equipment fails to record the place of one or more contestants in the race, secondary information will be integrated with primary information as follows:
      a. A contestant with a primary place must retain her relative order when compared with the other contestants having a primary place.
      b. A contestant without a primary place shall establish her official place by secondary information.
      c. The official place of one or more contestants whose times are tied with or fall within a time discrepancy are determined by secondary placement and recorded "J.D." (Judges Decision).

***Section 6.** The order of finish when two or more heats are held (as in preliminaries or timed-finals) shall be determined by one of the following (a, b, or c) after the order of finish in each heat has been established according to Section 5 above.

a. If human or semi-automatic equipment is used:
   1. Places shall be awarded on the basis of official time subject to the order of finish in each heat.

2. If a contestant has an official time which is tied with one or more contestants in another heat, all contestants having that time shall be tied.
3. If a judges' decision, or ballot decision in one heat creates a time discrepancy and a contestant in another heat has a time which is tied with either of these times, or falls within this time discrepancy, all contestants whose time tie or fall within this time discrepancy shall be tied.

b. If completely automatic equipment provides complete information for every contestant in the event:
1. Places shall be awarded on the basis of official time subject to the order of finish in each heat.
2. If a contestant has an official time which is tied with one or more contestants of another heat, all contestants having th time shall be tied.
3. If a judging decision in one heat establishes a finish order for contestants with identical times, and a contestant in another heat has an identical time, all shall be tied.

c. If completely automatic equipment is used but a malfunction has resulted in secondary information being used to establish time or place for any contestant in the event:
1. Places shall be awarded on the basis of official time subject to the order of finish in each heat.
2. If a contestant has an official time which is tied with that of one or more contestants in another heat, all contestants having that time shall be tied.
3. If a judging decision, or ballot decision in one heat creates a time discrepancy and a contestant in another heat has a time which is tied with either of these times, or falls within this time discrepancy, all contestants whose times tie or fall within this time discrepancy shall be tied.

Counters

★Section 7. Counters

a. Only in individual races of 400 yards or longer, each contestant must be provided with a visual length counter which may be supplemented with a verbal count. All counting must be given at the opposite end of the pool from the start in ascending order of lengths, for example. 1, 3, 5, etc. No length count shall be given in relay races, or in individual events of less than 400 yards.

b. A visual count must be given using black digits 12 inches tall on a white background. Each set of counters must be equipped with one indicator of solid fluorescent orange color to indicate the final length of each distance event

c. Each competitor must provide her own counting personnel not to exceed one person per competitor.

d. The counting must begin at the start of the race and continue until the end.

RULE 6. SCORING OF POINTS

Section 1. In dual meets, the scoring of place values shall be: relays, 7 - 0; all other events, 5 - 3 - 1 - 0.

Section 2. In triangular meets, the scoring of place values shall be: relays, 8 - 4 - 0; all other events, 6 - 4 - 3 - 2 - 1 - 0.

Section 3. In group meets:

a. When, because of the size of the pool, eight contestants can qualify for the finals, the scoring shall be: relays, 18 - 14 - 12 - 10 - 8 - 6 - 4 - 2; all other events, 9 - 7 - 6 - 5 - 4 - 3 - 2 - 1.

b. When, because of the size of the pool, seven contestants can qualify for the finals, the scoring shall be: relays, 16 - 12 - 10 - 8 - 6 - 4 - 2; all other events, 8 - 6 - 5 - 4 - 3 - 2 - 1.

c. When, because of the size of the pool, six contestants can qualify for the finals, the scoring shall be: relays, 14 - 10 - 8 - 6 - 4 - 2, all other events, 7 - 5 - 4 - 3 - 2 - 1.

d. When, because of the size of the pool, only five contestants can qualify for the finals, the scoring shall be: relays, 12 - 8 - 6 - 4 - 2; all other events, 6 - 4 - 3 - 2 - 1.

e. When, because of the size of the pool, only four contestants can qualify for the finals, the scoring shall be: relays, 10 - 6 - 4 - 2, all other events, 5 - 3 - 2 - 1.

***Section 4.** In championship and large group meets, the scoring shall be for 12 places in a 6 lane pool, 14 places in a 7 lane pool, 16 places in an 8 lane pool, 18 places in a 9 lane pool, or 20 places in a 10 lane pool.

a. Points shall be awarded as follows:

5 lane pool: Relays: Championship Final 28, 22, 20, 18, 16
Consolation Final 12, 8, 6, 4, 2
All other events: Championship Final 14, 11, 10, 9, 8
Consolation Final 6, 4, 3, 2, 1

6 lane pool: Relays: Championship Final: 32, 26, 24, 22, 20, 18
Consolation Final: 14, 10, 8, 6, 4, 2
All other events: Championship Final: 16, 13, 12, 11, 10, 9
Consolation Final: 7, 5, 4, 3, 2, 1
7 lane pool: Relays: Championship Final: 36, 30, 28, 26, 24, 22, 20
Consolation Final: 16, 12, 10, 8, 6, 4, 2
All other events: Championship Final: 18, 15, 14, 13, 12, 11, 10
Consolation Final: 8, 6, 5, 4, 3, 2, 1
8 lane pool: Relays: Championship Final: 40, 34, 32, 30, 28, 26, 24, 22
Consolation Final. 18, 14, 12, 10, 8, 6, 4, 2
All other events: Championship Final: 20, 17, 16, 15, 14, 13, 12, 11
Consolation Final: 9, 7, 6, 5, 4, 3, 2, 1
9 lane pool: Relays: Championship Final: 44, 38, 36, 34, 32, 30, 28, 26, 24
Consolation Final: 20, 16, 14, 12, 10, 8, 6, 4, 2
All other events: Championship Final: 22, 19, 18, 17, 16, 15, 14, 13, 12
Consolation Final: 10, 8, 7, 6, 5, 4, 3, 2, 1
10 lane pool: Relays: Championship Final: 48, 42, 40, 38, 36, 34, 32, 30, 28, 26
Consolation Final: 22, 18, 16, 14, 12, 10, 8, 6, 4, 2
All other events: Championship Final: 24, 21, 20, 19, 18, 17, 16, 15, 14, 13
Consolation Final: 11, 9, 8, 7, 6, 5, 4, 3, 2, 1

b. Consolation Finals shall precede Championship Finals in each event.
c. The number of lanes in the pool shall determine the number of qualifiers for the Championship and Consolation Finals. The top swimmers in the order of finish in the preliminaries shall qualify for the Championship Final. The next highest swimmers in the order of finish in the preliminaries shall qualify for the Consolation Final.
d. If a swimmer in either the Consolation Final or Championship Final is disqualified, the residual points shall be kept lost from the meet.
e. No Consolation Finalist can score higher than Consolation Final points either by time or disqualification in the Championship Final.

Section 5. In the event that two tie for first place, the first and second place awards shall be added and half the sum shall be

awarded to each contestant in the tie; there shall be no second place. If three tie for first place, the first, second, and third place awards shall be added and one third of the sum shall be awarded to each contestant in the tie; there shall be no second or third place. The same is true for those tieing for second place, third place, and whatever other places there may be.

★**Section 6.** The team having the greatest number of points shall be declared the winner of the meet. If the number of points for two or more teams is the same, a tie shall be declared.

★**Section 7.** Once the score sheet is signed by the referee, the score shall be official and cannot be changed.

RULE 7. OFFICIALS

Section 1. The officials shall be one swimming referee; one chief judge; one clerk of course, one official scorer; one chief timekeeper; finish judges; timekeepers; a starter; one or more inspectors of stroke, turns, and lanes; one diving referee; diving judges; and an announcer.

★**Section 2.**

a. The swimming and diving referees shall have full jurisdiction over the swimming and diving events, respectively, and shall assign all officials as needed. They shall see that all rules are enforced and shall administer all disqualifications. The referee's decision is final in all areas of disagreement.
b. During the meet the swimming referee shall:
   1. determine that all officials are ready and by whistle call the swimmers to their marks, give any necessary instructions, and then give the starter control of the race.
   2. notify a disqualified contestant of her infraction immediately following the event in question.
   3. immediately stop a race by recall signal if automatic timing equipment fails to start.
   4. after the last event, recheck the scorer's tabulation and when correct make the score official by signing the score sheet. (After this is done, no change may be made even though an error appears.)

Section 3. The chief judge shall:

a. Be responsible for all substitutions occurring during the course of the meet.
b. Determine the official order of finish for each event.

Section 4. The clerk of course shall be responsible for placing the contestants immediately behind the starting mark at the proper time for each event.

Section 5. The official scorer shall record and audit the results of each event.

Section 6. The chief timekeeper shall be responsible for the official recording of all times (including those of disqualified contestants) and for the proper assignment of timekeepers. Timekeepers shall not serve as finish judges in the same race.

★a. In all races, the winning time shall be taken by three watches, or semi-automatic timing devices, or by one completely automatic timing device. Additional timekeepers may be assigned to time places or lanes depending upon the number of available timekeepers.

★b. For heats and timed finals of triangular and group meets, three timekeepers or semi-automatic timing devices, or one completely automatic timing device shall be assigned to each place or lane.

★c. A completely automatic timing device approved by the NCAA or AAU may be used. Semi-automatic devices are started by the starter's gun and stopped by an official operating a switch (i.e., anything other than the swimmer). Semi-automatic timing devices are considered the same as a watch. Completely automatic timing devices are started by the starter's gun and terminated by the swimmer's finish. A back-up system of semi-automatic and/or human timers must be provided when completely automatic timing equipment is used.

Section 7. The finish judges shall determine the order in which the contestants finish. They shall not serve as timers in the same race.

a. In place judging, one finish judge shall be assigned to determine first place, one for second place, one for third place, and so on for as many places needing judging.

b. In lane judging, as used in the Ballot System, two judges on opposite sides of the pool shall be assigned to each lane used. Each shall determine independently where the contestant in her lane finishes in the race. The judges may not record a tie, but shall record the higher place her contestant (lane) may have attained.

★c. A completely automatic or semi-automatic judging device approved by the NCAA or AAU may be used. Semi-automatic devices are started with the starter's gun and stopped by an official operating a switch (i.e., anything other than the swimmer). Completely automatic judging devices are started by

the starter's gun and terminated by the swimmer's finish. A back-up system of semi-automatic and/or human judges must be provided when completely automatic judging equipment is used.

Section 8. The starter shall:

★a. Have full control of the contestants from the time they have been assigned to her by the referee until the race is properly underway.

★b. Use a pistol for the starting signal and a pistol or whistle for the recall signal.

★c. Release other contestants with command "stand up" when a false start has occurred.

d. Indicate those contestants who shall be charged with a false start.

★e. Recall swimmers if automatic timing equipment fails to start

★f. Discharge the pistol when the leading swimmer has 2 lengths plus 5 yards to swim in individual events over 200 yards.

Section 9. The inspector of strokes, turns, and lanes shall:

a. Have jurisdiction over the competitors immediately after the race has begun.

★b. Raise hand overhead immediately upon seeing a violation. Use fingers to indicate the lane number in which the violation occurred.

c. Report all violations of Rule 4, Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 to the referee.

★Section 10. Relay take-off judges shall:

a. Place a little finger in contact with the contestant's longest toe and observe the end of the pool to determine whether the contestant has lost contact with the starting surface before the preceeding relay contestant has touched the end.

b. If automatic relay take-off judging equipment is used, the take-off judges will be assigned to each lane but stationed on the side of the pool nearer the lane they are judging. Judging based on visual judges will be used only in case of equipment malfunction.

RULE 8. CONDUCT OF CHAMPIONSHIP MEETS

Section 1. The meet shall be planned and conducted according to the current DGWS Swimming and Diving Rules.

Section 2. The Meet Committee shall have the responsibility for establishing a rules interpreting committee. (For DGWS National Intercollegiate Championships, this Meet Committee is the Sports

Committee appointed by the Commission on Intercollegiate Athletics for Women.)

Section 3. Pool Facility and Equipment

a. The pool shall be 25 yards in length with a minimum water depth of 3½ feet.
b. Diving facilities shall meet the specifications in Rule 9.
c. Individual lines at least 12 inches wide shall mark the center of each lane on the bottom of the pool as a guide to contestants. These lines should terminate five feet from each end of the pool in a T at least 30 inches long and 12 inches wide. Similar lines should mark the end of the pool as a target on the wall.
d. There shall be at least six lanes, not less than seven feet in width, measured from the centers of the individual lines. The lanes shall be clearly numbered, so that they may be identified easily, from right to left as the swimmer stands facing the course. Tightly stretched and visible floating markers shall define the lateral limits of each lane. It is recommended that these markers be formed by ropes, cables, or wires with round, flow-through plastic float coverings strung end on end with no spacing the entire length of the course, and that the color of the floats within 15 feet of each end be distinct from that of the rest of the floats.
e. The starting platform should not exceed 30 inches in height above the water surface. The top may be sloped, not to exceed 10 degrees from the horizontal toward the pool, or may be flat. A firm horizontal bar flush with the end of the pool and no higher than 30 inches shall be provided
f. A recall rope, which may be dropped across the racing lanes approximately 36 feet from the take-off, shall be available.
g. An overhead pennant rope, stretching across the racing lanes 15 feet from the end of the pool, shall be provided at each end. This pennant rope shall be seven feet above the water surface.
h. A scoreboard of adequate size should be installed in such position that participants and spectators may follow the progress of the meet.

Section 4. Program and Order of Events

★a. The following program and order of events is recommended for a three-day meet:

First day preliminaries

400-yard freestyle
50-yard breaststroke
100-yard backstroke
50-yard freestyle

First day finals

400-yard freestyle
50-yard breaststroke
100-yard backstroke
50-yard freestyle

200-yard butterfly
100-yard individual medley
400-yard freestyle relay

Second day preliminaries

200-yard freestyle
50-yard butterfly
100-yard breaststroke
200-yard backstroke
400-yard individual medley
200-yard medley relay
1-meter diving (prelims and semi-finals)

Third day preliminaries

400-yard medley relay
200-yard individual medley
100-yard freestyle
100-yard butterfly
50-yard backstroke
200-yard breaststroke
200-yard freestyle relay
3-meter diving (prelims and semi-finals)

200-yard butterfly
100-yard individual medley
400-yard freestyle relay

Second day finals

200-yard freestyle
50-yard butterfly
100-yard breaststroke
1-meter diving finals
200-yard backstroke
400-yard individual medley
200-yard medley relay

Third day finals

400-yard medley relay
200-yard individual medley
100-yard freestyle
3-meter diving finals
100-yard butterfly
50-yard backstroke
200-yard breaststroke
200-yard freestyle relay

When indoor pools are used, preliminaries should begin at 10:00 A.M. and finals at 7:00 P.M.
When outdoor pools are used, preliminaries may begin at 9:00 A.M. and finals may begin at 4:00 P.M. if desirable.

b. If a one- or two-day meet is conducted, the Meet Committee shall be responsible for establishing the program and order of events.

Section 5.

a. Qualifying times must have been achieved in a meet conducted under DGWS Swimming and Diving Rules (or in a certified time trial) after September 1st preceding the meet for which the contestant is qualifying. In the case of a certified time trial, a gun start must be used and a statement must be submitted with the entry blank giving the times of three watches and signed by three timers, and referee-starter indicating that the time trial was conducted in accord with DGWS Swimming and Diving rules.

DGWS COLLEGIATE SWIMMING RECORDS

Short Course (Pools 25 yards, but less than 25 meters)*

Event	*Name*	*School*	*Time*	*Date*
25-yd. freestyle:	Patricia Kennedy	St. Univ. College Oneonta, N.Y	12.2	1965
50-yd. freestyle:	Patricia Caffery	Syracuse Univ.	25.1	1971
100-yd. freestyle:	Patricia Caffery	Syracuse Univ.	55.0	1971
200-yd. freestyle:	Jan Henne	Ariz. St. Univ.	1:57.9	1970
25-yd. backstroke:	Terry Ogilvie	San Jose State	14.0	1968
50-yd. backstroke:	Jane Swagerty	So. Oregon	28.54	1971
100-yd. backstroke:	Patricia Ingram	Ball State Univ.	1:02.3	1970

★b. If the times were made at an altitude of 5000 feet or over, a time adjustment may be made in qualifying for the meet as follows: for 200-yard individual events only–subtract 1.2 seconds, and use this time on the entry blank; for 400-yard individual events only–subtract 8.0 seconds, and use this time on the entry blank. Information relative to the adjustment must be shown in a separate statement and returned with the official entry blank. The statement must include name of competitor, event, date of performance, elevation, location, actual time, corrected time, and signature of the coach.

Section 6. Recommended Entry and Scratch Procedures for a Three-day Meet

a. An individual may enter as many events as she desires as long as she meets the qualifying time in each event, however, she must withdraw by the scratch deadlines in order to comply with Rule 3, Section 2, or Rule 8, Section 6h.
b. The hostess school shall compile a list of all entries in each event, and fill out one entry card for each contestant from the data submitted on the returned entry blanks.
c. A copy of the entry lists and the entry cards will be presented to each coach or her duly appointed representative.
d. The entry card must be deposited in the designated sealed entry box at any time prior to the scratch deadline for the entry to be officially confirmed.
e. The entry box shall be clearly marked and accessible from 8:00 A.M. until 7:00 P.M. of the day preceding the first event, and from 8:00 A.M. until one-half hour after the finish of the final event of the first and second day of the meet, for the second and third day events.
f. Scratch deadlines shall be 7:00 P.M. of the evening preceding the first day for the events on the first day, and one-half hour after the finish of the final event for the events on the succeeding day. The meet committee shall open the entry box and seed the heats and lanes immediately following the scratch deadlines. After the scratch deadline no withdrawals or substitutions may be made.
g. A team may have any number of contestants, who have achieved qualifying times, entered in individual events. A team may enter only one relay team in each relay event. Each relay team shall be allowed to list a maximum of eight contestants, any four of whom may compete. Being listed as a relay contestant shall count as an event.
h. In a three-day meet, a contestant is permitted to compete in a maximum of five events as follows: no more than two relay

events; no more than three individual events. A competitor may not compete in more than three events in any one day during the three-day championship meet. A violation of this rule will result in the contestant being disqualified from the individual or relay events in which she is illegally entered.

Section 7.

a. A contestant, once officially entered, must compete in all heats, swim-offs, semifinals (diving), and finals for which she qualifies. This applies to individuals and relay teams except in the case of disqualification under the false start rule. Failure to compete for any reason, except illness or injury certified by the meet physician, shall nullify any previous performance and prohibit any further competition in the meet. In case of disqualification on this basis, the points scored by other teams shall not be altered.
b. The meet physician shall determine the fitness for competition of contestants in case of illness or injury. When a contestant has been declared unfit for competition by the meet physician, the referee may permit the contestant to be withdrawn without penalty. If the contestant recovers before the end of the meet, she may be reinstated in later events under the same conditions.

Section 8. Seeding for preliminary heats, and lanes in heats and finals, shall be according to Rule 5, Section 2b, d, and e except as otherwise indicated in Rule 8.

Note: Any of the provisions of Rule 8, except Section 6h, may be applied in any meet at the discretion of the hostess school provided prior notification is given to participating schools.

RULE 9. DIVING

Section 1. Facilities

a. The springboards should be one meter and three meters above the water level at the tip end. They should be 16 feet long by 20 inches wide with the entire length of the upper surface of adequate nonskid material.
b. The front end of each board should project at least 6 feet beyond the end of the pool. Clearance from the side of the boards should be at least 10 feet for a one-meter board and at least 12 feet for a three-meter board. The distance between boards should be at least 7 feet.
c. It is required that all diving equipment be installed and maintained to conform to regulations, especially those govern-

ing elevation and pitch. The water should be at least 12 feet deep for a one-meter board, and 13 feet deep for a three-meter board.

d. The springboard should be installed so that the board is level though the fulcrum be moved to varying positions. The fulcrum should be of a type readily adjustable by mechanical means between dives.
e. In all springboard diving championships, diving equipment approved by the Meet Committee shall be used.

Section 2. Program

Each diving event (one meter or three meter) shall consist of one of the following:

Diving C: There shall be three dives (each a different number): required dive #101 (which shall be done first) plus two optional dives, each from a different group. In this contest there shall be finals only.

Diving B: There shall be five dives (each a different number). The required dive (which shall be done first) shall be drawn by the diving referee from dives #101, 201, and 5111 before the start of the meet. After the draw, any of the two remaining dives listed above may be included in the list of four optional dives. The four optional dives must each be from a different group. In this contest there shall be finals only.

Diving A: There shall be six dives (each a different number.) The required dive (which shall be done first) shall be drawn by the diving referee from dives #101, 201, 301, 401, and 5111, before the start of the meet. After the draw, any of the remaining dives listed above may be included in the list of five optional dives. The five optional dives must include at least four of the five groups. In this contest there shall be finals only.

★*Championship:* In championship meets, the diving competition shall consist of five required dives, #101, 201, 301, 401, 5111, and six optional dives, including one from each of the five groups. The contest shall consist of preliminaries, semifinals, and finals.

In the preliminaries, all contestants shall perform any three required dives and two optional dives. The two optional dives must be from different groups. These five dives may be performed in any order. After the preliminary round, only the 16 highest scores will qualify for the semifinals. The semifinals shall start immediately after the semifinalists have been announced.

In the semi-final round, the 16 qualifiers will each perform the remaining two required dives and one optional dive in any order. After the semifinal round, the 12 highest scores will qualify for the finals. The 12 finalists will each perform the remaining three optional dives. The winner shall be the contestant with the greatest number of points after the performance of 11 dives of different numbers.

If no more than 16 contestants are entered in the contest, all contestants will perform both preliminary and semifinal dives and the highest 12 will qualify for the finals.

In the event that a diver has qualified for the semifinals or finals and then is injured or ill at the beginning of these rounds and is unable to participate in the round for which she has qualified, the diver in seventeenth place will move up to the semifinals, or the diver in thirteenth place will move up to the finals, whichever the case.

Note. The above system is recommended for a twelve-place scoring system. For those using a six-place scoring system, twelve divers shall qualify for the semifinals and six for the finals.

Section 3. Conduct of a Diving Event

a. All entry blanks shall specify the type of board to be used in the meet (fiberglass, wood, or aluminum) and the water depth.
b. For championship meets, all diving apparatus should be made available not less than three days before the competition starts and should not be altered thereafter until the competition is completed except when a board is broken or other mechanical difficulties warrant. Diving equipment must meet the minimum specifications listed in Section 1 above.
c. Each contestant shall submit a signed list of her preliminary, semifinal, and final dives by the scratch deadline. A contestant may change any dive or any position up until one hour prior to the scheduled diving contest time. In meets which have no scratch deadline, the diving list may be delivered anytime before the meet begins.
d. Only those dives as are mentioned in the tables may be executed.
e. No required dive may be repeated as an optional dive. All dives of the same number, whether layout, pike, or tuck, are considered the same dive.
f. All practice diving must be completed prior to the start of the swimming meet (unless separate diving facility is being used). At the discretion of the diving referee, the contestants may be permitted one practice approach immediately prior to the start of the diving competition.

80-yd. freestyle relay:			
Valentine, Callman, McGlynn, Goettleman		St. Mary's Girls, Manhasset, N.Y.	42.5 1969
160-yd. freestyle relay:			
Hartman, Holcombe, M. Montgomery, M. Montgomery		Asheville, N.C.	1:27.1 1970

g. In championship and group meets, the order of starting shall be decided by lot. The draw for order of positions shall be done publicly. Semifinalists and finalists shall dive in the same relative positions that prevailed in the preliminaries. There shall be only one flight of diving in preliminaries, semifinals, or finals. In dual meets, the visiting team shall have the choice of the alternate positions. (If there is only one visiting team entry in the diving event, that person has the choice of any position in the diving order.)

h. For each championship contest there shall be a diving referee; five, seven, or nine judges and a scorer; and an announcer. In dual and group meets, one diving referee, at least three judges, and a scorer are required.

i. The referee shall place the judges separately, and preferably on both sides of the diving board, if practical. The judges must maintain their respective places throughout the preliminary, semifinal and final sessions. If it is not possible to separate the judges, they shall be placed together on one side. The judges for the preliminary session must also judge the semifinals and finals, unless due to unavoidable circumstances, the judge must be replaced. Under these circumstances the diving referee shall have the power to make the change.

j. Before each dive the announcer shall announce the name of the contestant, the name of the dive, the position in which the dive is to be executed, and the degree of difficulty. If a forward standing take-off is to be used, this shall also be announced.

k. The contestant shall be given sufficient time for preparation and performance of the dive.

l. All dives must be executed by the competitor, without assistance from any other person, after the announcer has announced the name of the competitor and the dive which she is to execute. Assistance between dives is permitted.

m. After each dive, on signal from the referee, each judge without communicating with any other judge, shall immediately and simultaneously with the other judges flash her award.

n. The referee shall have the individual awards placed each time in the same consecutive order on a score sheet. If three judges are used, there shall be no cancellation of scores. If five or seven judges are used, the highest and lowest awards shall be cancelled. If nine judges are used, the two highest and the two lowest awards shall be cancelled. If two or more awards are equal, either of them may be cancelled.

★o. The scorer shall determine the total value of the remaining awards and multiply this by the degree of difficulty to obtain

ORD

401

{ Twenty Yard Course
Short Course Pool
Twenty-Five Meter Course } pool

mittee
: applicant and certify that the meet
s Meets

Time _____
Time _____
Time _____

e watches were synchronized and an
with the DGWS Aquatics Guide Com-
be sure to check existing records and

the points for the dive. The announcer shall announce the points awarded for the dive.

p. The winner shall be the contestant who has obtained the greatest sum of points. If two or more contestants obtain the same number of points, it shall be a tie. Meet points shall be awarded for diving as for all other individual events. See Rule 6.

q. At the end of the contest the diving referee with the scorer shall examine the diving score sheets and confirm the final results by their signatures on the meet score sheet. Once the score sheet is signed by both officials, no change can be made in the scores even if an error is found.

Section 4. Execution of the Dive

Dives must be executed and judged on the following principles:

a. When judging a dive, only the dive is to be considered without regard to the approach to the starting position. The points to be considered are: the forward approach, the take-off, the technique and grace of the dive during its passage through the air, the entry into the water.

b. All dives with forward take-off may be performed either standing or running at the option of the diver. A prior declaration of a forward standing take-off is required. The judge shall award points for a standing dive bearing in mind the height and standards of execution which might be expected from a running dive.

c. The starting position for a running dive shall be assumed when the contestant is ready to take the first step. The forward approach shall be smooth, forceful, and shall comprise not less than three steps followed by a hurdle, which is a jump to the end of the board alighting on both feet simultaneously. The take-off shall be from both feet simultaneously, forceful, reasonably high, and immediately following the hurdle.

d. The starting position for a standing dive shall be assumed when the competitor stands on the front end of the diving board. The body shall be straight, head erect with arms straight against the sides. When executing the standing take-off, the contestant must not rock the board excessively or lift his feet from the board prior to the take-off.

★e. During the passage through the air, the body may be carried with a layout, with a pike, or with a tuck. In the layout position, the body shall not be bent either at the knees or at the hips; the feet must be together and the toes pointed. In the pike position, the body shall be bent at the hips, but the legs must be

kept straight at the knees, toes pointed. The pike shall be as compact as possible. In the tuck position, the body should be as compact as possible bending both hips and knees with the toes pointed.

f. The free position (a combination of layout, pike, or tuck) may be used in twisting dives only as listed in the tables.

★g. The position of the arms during the flight through the air shall be the choice of the diver. The arms must be kept still until just before the entry into the water when they must be brought rapidly together and extended beyond the head in line with the body.

h. In dives with twists, the twist may be performed at any time during the dive at the option of the contestant except in dives Nos. 5111 pike, 5211 pike, 5311 pike, and 5411 pike. In these dives the pike is executed first.

i. In somersaults (other than flying somersaults) the turn must commence as soon as the contestant leaves the board. In flying somersaults the layout position must be maintained from the take-off until the body has rotated approximately one-half somersault before the diver assumes the spinning position.

j. The entry into the water must in all cases be vertical or nearly so, with the body straight, toes pointed. All head-first entries shall be executed with the arms stretched beyond the head in line with the body, with hands close together. In all feet-first entries, the arms shall remain close to the body with no bending at the elbows.

Section 5. Judges' Awards

a. Diving judges shall award scores from 0 to 10 in accordance with the following table: (One-half point scale may be used.)

Very good	8½ through	10	points
Good	6½ through	8	points
Satisfactory	5 through	6	points
Deficient	2½ through	4½	points
Unsatisfactory	½ through	2	points
Completely failed		0	points

b. If the contestant does not make an honest attempt to complete each of the dives as announced (the referee to be the judge), she shall be disqualified from the event.

★c. If the position is completely broken or the dive is performed other than that written, it shall be considered unsatisfactory and awarded not more than two points. If a dive is performed in a position partially altered or broken during the flight through the air, the diving referee shall instruct the judges to consider the

dive deficient and not award the dive more than four and one-half points.

d. If a diver falls into the water prior to assuming the starting position, it shall be considered a failed dive.

e. If the referee is certain that a diver executed a dive other than that announced, the referee shall call it a failed dive and shall not call for the judges' awards.

f. In the event of a contestant making a balk or false start on the springboard and not completing a dive which has been started, the diving referee, upon completion of the second attempt, shall instruct the scorer to reduce the final total award by one-third. If the second attempt to obtain a balance or take-off is unsuccessful it should be considered as a failed dive. No further attempt shall be permitted.

g. The diving referee is authorized to have a failed dive repeated when, in her opinion, the execution of the dive was influenced by exceptional circumstances. The request for such repetition must be made by the diver immediately after the execution of the spoiled dive.

Note: Exceptional circumstances include only the most unusual happenings.

★h. If in any dive the diver touches the end of the board or dives to the side of the direct line of flight, each judge shall award no more than four points. Properly executed dives should be a safe distance from the board.

i. If a diver takes less than three steps before the hurdle, the referee shall deduct two points from each of the judges' awards.

j. If the diver, when executing a standing take-off rocks the board excessively or lifts the feet from the board before the take-off, each judge shall deduct no more than one and one-half points from her award according to her individual opinion.

k. If the diver spreads her knees while in a tuck position, the judges shall deduct one to two points.

TABLE FOR SCORING DIFFICULTY OF DIVES

First column = Judge's total value *of a given dive on basis of points or half points, ten points being given for a perfect dive (see Rule 6) Succeeding columns contain* final results *of dives after judge's estimate has been multiplied by the proper* factor for difficulty *The various difficulty ratings (see Rule 6) appear in boldface type at top of each column of final results, in the table below.*

Three Judge Total	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
1.	1 1	1.2	1 3	1 4	1.5	1 6	1.7	1 8	1 9	2 0	2.1	2 2	2 3	2 4	2 5
1.5	1.65	1 8	1.95	2.1	2 25	2 4	2 55	2 7	2 85	3.	3 15	3.3	3.45	3.6	3.75
2.	2 2	2.4	2 6	2 8	3.	3.2	3 4	3 6	3 8	4.	4.2	4 4	4 6	4 8	5.
2 5	2 75	3.	3.25	3.5	3 75	4.	4.25	4 5	4 75	5.	5.25	5.5	5.75	6.	6.25
3.	3 3	3 6	3.9	4 2	4.5	4 8	5.1	5 4	5 7	6.	6 3	6.6	6.9	7.2	7.5
3 5	3.85	4 2	4 55	4 9	5.25	5 6	5 95	6 3	6 65	7.	7 35	7.7	8 05	8 4	8 75
4	4 4	4 8	5 2	5 6	6.	6 4	6 8	7 2	7 6	8	8 4	8 8	9 2	9 6	10
4 5	4 95	5 4	5 85	6 3	6 75	7 2	7 65	8 1	8 55	9.	9.45	9 9	10 35	10 8	11 25
5.	5 5	6.	6 5	7	7 5	8	8 5	9	9 5	10.	10 5	11	11 5	12	12 5
5 5	6 05	6 6	7 15	7.7	8 25	8 8	9 35	9 9	10 45	11.	11.55	12.1	12 65	13 2	13.75
6	6 6	7 2	7 8	8 4	9	9 6	10 2	10 8	11 4	12.	12 6	13 2	13.8	14 4	15.
6 5	7 15	7.8	8 45	9.1	9 75	10 4	11 05	11 7	12 35	13.	13 65	14 3	14 95	15.6	16 25
7	7.7	8 4	9 1	9 8	10 5	11 2	11 9	12 6	13 3	14	14 7	15 4	16 1	16 8	17 5
7 5	8 25	9.	9 75	10 5	11 25	12	12 75	13 5	14 25	15.	15.75	16 5	17.25	18.	18.75
8.	8 8	9 6	10 4	11.2	12.	12 8	13 6	14 4	15 2	16.	16 8	17 6	18 4	19 2	20.
8 5	9 35	10 2	11 05	11 9	12.75	13 6	14 45	15 3	16 15	17.	17 85	18.7	19.55	20.4	21 25
9	9 9	10.8	11.7	12.6	13 5	14 4	15 3	16 2	17.1	18	18 9	19 8	20 7	21 6	22 5
9.5	10 45	11.4	12 35	13 3	14 25	15 2	16 15	17 1	18 05	19.	19 95	20 9	21 85	22 8	23.75
10	11.	12.	13	14.	15.	16	17.	18	19	20.	21.	22	23	24.	25
10 5	11.55	12 6	13 65	14.7	15 75	16 8	17.85	18.9	19 95	21.	22.05	23.1	24.15	25.2	26 25
11.	12.1	13.2	14 3	15 4	16 5	17.6	18.7	19 8	20 9	22.	23.1	24.2	25.3	26.4	27 5
11 5	12 65	13.8	14 95	16.1	17 25	18 4	19 55	20 7	21.85	23.	24.15	25.3	26 45	27.6	28 75
12.	13 2	14 4	15 6	16 8	18.	19 2	20 4	21 6	22 8	24.	25 2	26 4	27 6	28 8	30
12 5	13.75	15	16 25	17 5	18 75	20	21 25	22 5	23 75	25	26.25	27.5	28.75	30.	31 25
13.	14 3	15 6	16 9	18 2	19.5	20 8	22 1	23 4	24 7	26.	27 3	28 6	29 9	31.2	32.5
13 5	14 85	16 2	17.55	18 9	20 25	21 6	22 95	24 3	25 65	27.	28 35	29.7	31 05	32 4	33 75
14.	15 4	16 8	18 2	19.6	21.	22 4	23 8	25 2	26 6	28.	29 4	30 8	32 2	33 6	35.

Three Judge Total	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
14 5	15.95	17 4	18.85	20.3	21.75	23.2	24 65	26 1	27.55	29.	30.45	31.9	33 35	34 8	36 25
15.	16.5	18.	19.5	21.	22 5	24.	25 5	27.	28.5	30.	31 5	33.	34 5	36	37 5
15 5	17 05	18 6	20 15	21.7	23.25	24 8	26 35	27.9	29.45	31.	32 55	34.1	35 65	37 2	38.75
16	17 6	19.2	20 8	22 4	24.	25.6	27 2	28 8	30 4	32.	33 6	35.2	36.8	38.4	40.
16 5	18.15	19.8	21.45	23.1	24.75	26 4	28.05	29.7	31.35	33.	34.65	36.3	37.95	39.6	41.25
17.	18 7	20 4	22.1	23.8	25 5	27 2	28 9	30.6	32 3	34	35.7	37.4	39 1	40.8	42 5
17.5	19.25	21.	22.75	24 5	26 25	28.	29.75	31 5	33.25	35.	36.75	38.5	40.25	42	43 75
18.	19.8	21.6	23.4	25.2	27.	28 8	30 6	32 4	34.2	36.	37.8	39.6	41.4	43.2	45
18 5	20.35	22 2	24 05	25.9	27.75	29 6	31 45	33.3	35.15	37.	38 85	40.7	42.55	44 4	46 25
19	20.9	22 8	24.7	26.6	28.5	30 4	32 3	34.2	36.1	38.	39.9	41.8	43.7	45 6	47.5
19.5	21.45	23.4	25.35	27.3	29.25	31.2	33.15	35.1	37 05	39.	40.95	42.9	44 85	46.8	48 75
20.	22.	24.	26.	28.	30.	32.	34.	36	38	40.	42	44.	46	48	50.
20.5	22 55	24.6	26.65	28.7	30.75	32.8	34 85	36 9	38.95	41.	43.05	45.1	47.15	49 2	51.25
21.	23.1	25.2	27.3	29.4	31.5	33 6	35 7	37.8	39.9	42.	44 1	46 2	48.3	50.4	52.5
21 5	23 65	25 8	27.95	30.1	32 25	34 4	36 55	38.7	40 85	43.	45.15	47.3	49 45	51.6	53.75
22.	24 2	26 4	28 6	30 8	33.	35.2	37 4	39 6	41.8	44.	46 2	48.4	50 6	52 8	55.
22 5	24.75	27.	29 25	31 5	33.75	36.	38.25	40 5	42 75	45.	47 25	49 5	51.75	54.	56 25
23.	25.3	27.6	29 9	32.2	34 5	36.8	39.1	41 4	43.7	46.	48 3	50 6	52.9	55.2	57.5
23.5	25 85	28 2	30 55	32 9	35.25	37.6	39 95	42 3	44 65	47.	49.35	51.7	54.05	56.4	58.75
24	26 4	28 8	31 2	33 6	36.	38 4	40.8	43 2	45 6	48.	50.4	52 8	55.2	57 6	60.
24.5	26 95	29 4	31.85	34.3	36.75	39.2	41.65	44.1	46.55	49.	51.45	53.9	56 35	58.8	61.25
25.	27 5	30	32 5	35	37 5	40.	42 5	45.	47 5	50.	52 5	55.	57 5	60.	62.5
25 5	28 05	30 6	33.15	35.7	38.25	40.8	43 35	45 9	48 45	51.	53 55	56.1	58 65	61 2	63 75
26.	28 6	31.2	33 8	36.4	39.	41.6	44 2	46 8	49 4	52.	54.6	57.2	59 8	62.4	65.
26 5	29.15	31.8	34 45	37.1	39.75	42.4	45 05	47 7	50 35	53.	55.65	58.3	60 95	63 6	66 25
27.	29.7	32 4	35 1	37.8	40 5	43 2	45.9	48 6	51 3	54.	56.7	59 4	62 1	64 8	67 5
27.5	30 25	33.	35.75	38 5	41.25	44.	46 75	49.5	52.25	55.	57.75	60.5	63.25	66	68.75
28.	30 8	33 6	36 4	39.2	42	44 8	47.6	50 4	53 2	56.	58.8	61.6	64 4	67 2	70.
28 5	31.35	34 2	37 05	39.9	42 75	45.6	48 45	51.3	54 15	57.	59 85	62.7	65.55	68 4	71 25
29.	31.9	34 8	37.7	40.6	43 5	46 4	49.3	52.2	55.1	58.	60 9	63 8	66.7	69 6	72 5
29 5	32 45	35 4	3. 35	41.3	44 25	47 2	50.15	53.1	56 05	59.	61.95	64 9	67 85	70 8	73.75
30	33.	36.	39	42.	45	48.	51.	54	57.	60.	63.	66.	69.	72	75.

Example: If the total award of three judges is 7.5 for a 2.3 dive, the result, 17 25, is found at a glance.

SPRINGBOARD DIVING TABLES

Dives selected from AAU Handbook

Dive No.		1-Meter Dive				3-Meter Dive			
	Group 1 Forward Dives	*Tuck*	*Pike*	*Layout*	*Free*	*Tuck*	*Pike*	*Layout*	*Free*
101.	Forward dive	1.2	1.2	1.4	—	1.3	1.3	1.6	—
102.	Forward somersault	1.4	1.5	1.7	—	1.7	1.7	1.8	—
103.	Forward 1½ somersault	1.6	1.7	—	—	1.6	1.6	2.1	—
104.	Forward double somersault	2.0	2.2	—	—	2.1	2.2	—	—
105.	Forward 2½ somersault	2.3	2.6	—	—	2.1	2.3	—	—
106.	Forward triple somersault	2.6	—	—	—	2.5	2.7	—	—
107	Forward 3½ somersault	3.0	—	—	—	2.7	3.0	—	—
112.	Forward flying somersault	1.5	1.7	—	—	1.6	1.7	—	—
113.	Forward flying 1½ somersault	1.8	1.9	—	—	1.7	1.8	—	—
	Group 2. Back Dives								
201.	Back dive	1.6	1.6	1.6	—	1.7	1.7	1.7	—
202.	Back somersault	1.5	1.6	1.7	—	1.5	1.7	1.6	—
203.	Back 1½ somersault	2.2	2.3	2.4	—	2.0	2.2	2.2	—
204.	Back double somersault	2.2	2.3	—	—	2.0	2.2	2.4	—
205.	Back 2½ somersault	—	—	—	—	2.8	3.0	—	—
212.	Back flying somersault	1.7	1.8	—	—	1.6	—	—	—
213.	Back flying 1½ somersault	—	—	—	—	2.1	—	—	—

Group 3. Reverse Dives

301.	Reverse dive	1.7	1.7	1.7	—	1.7	1.9	1.9	—
302.	Reverse somersault	1 6	1.8	2.0	—	1.5	1.7	1.9	—
303.	Reverse 1½ somersault	2.3	2.5	2.8	—	2.2	2.4	2.6	—
304.	Reverse double somersault	2.2	—	—	—	2.2	2.4	—	—
305.	Reverse 2½ somersault	3.0	—	—	—	2.8	3.0	—	—
312.	Reverse flying somersault	1.7	1.8	—	—	1 6	—	—	—
313.	Reverse flying 1½ somersault	—	—	—	—	2.4	—	—	—

Group 4. Inward Dives

401.	Inward dive	1.2	1 3	1.7	—	1.2	1.3	1.6	—
402.	Inward somersault	1.7	1.9	—	—	1.5	1.7	—	—
403.	Inward 1½ somersault	2.2	2 4	—	—	2.0	2.2	—	—
404.	Inward double somersault	2.3	—	—	—	2.3	2.4	—	—
405.	Inward 2½ somersault	—	—	—	—	2.6	2.9	—	—
412.	Inward flying somersault	—	—	—	—	1.8	—	—	—
413.	Inward flying 1½ somersault	—	—	—	—	2.3	—	—	—

Group 5. Twist Dives

5111.	Forward dive, ½ twist	—	1.7	1.8	—	—	1.8	1.9	—
5112.	Forward dive, 1 twist	—	2.1	2.0	—	—	2.1	2.0	—
5121.	Forward somersault, ½ twist	—	—	—	1.7	—	1.7	1.9	—
5122.	Forward somersault, 1 twist	—	—	—	2.0	—	—	—	2.0
5124.	Forward somersault, 2 twists	—	—	—	2.2	—	—	—	—
5131.	Forward 1½ somersault, ½ twist	2.0	2.1	—	—	1.9	2.0	—	—
5132.	Forward 1½ somersault, 1 twist	—	—	—	2.2	—	—	—	2.1
5134.	Forward 1½ somersault, 2 twists	—	—	—	2.7	—	—	—	2.4
5136.	Forward 1½ somersault, 3 twists	—	—	—	3.0	—	—	—	2.9
5152.	Forward 2½ somersault, 1 twist	—	—	—	—	—	—	—	2.8
5211.	Back dive, ½ twist	—	2.0	1.6	—	—	1.9	1.6	—
5212.	Back dive, 1 twist	—	—	2.1	—	—	—	2.0	—
5221.	Back somersault, ½ twist	—	—	—	1.7	—	1.8	1.8	—
5222.	Back somersault, 1 twist	—	—	—	1.9	—	—	—	2.0
5223.	Back somersault, 1½ twist	—	—	—	2.1	—	—	—	2.1
5231.	Back 1½ somersault, ½ twist	—	—	—	2.1	—	—	—	2.1
5233.	Back 1½ somersault, 1½ twists	—	—	—	2.6	—	—	—	2.4
5235.	Back 1½ somersault, 2½ twists	—	—	—	2.8	—	—	—	2.7
5311.	Reverse dive, ½ twist	—	2.2	1.8	—	—	2.2	2.0	—
5312.	Reverse dive, 1 twist	—	—	2.2	—	—	—	2.2	—
5321.	Reverse somersault, ½ twist	—	—	—	1.8	—	—	—	2.0
5322.	Reverse somersault, 1 twist	—	—	—	2.0	—	—	—	2.2
5323.	Reverse somersault, 1½ twist	—	—	—	2.2	—	—	—	2.2
5331.	Reverse 1½ somersault, ½ twist	—	—	—	2.2	—	—	—	2.2
5333.	Reverse 1½ somersault, 1½ twists	—	—	—	2.7	—	—	—	2.5
5335.	Reverse 1½ somersault, 2½ twists	—	—	—	2.9	—	—	—	2.8
5411.	Inward dive, ½ twist	—	1.7	2.0	—	—	1.8	2.0	—
5412.	Inward dive, 1 twist	—	—	—	—	—	2.2	2.2	—
5421.	Inward somersault, ½ twist	1.9	1.9	—	—	2.0	2.0	—	—
5422.	Inward somersault, 1 twist	—	—	—	2.2	—	—	—	—
5432.	Inward 1½ somersault, 1 twist	—	—	—	—	—	—	—	2.6

80-yd. freestyle: Barbara Herbert	Skidmore	52.8	1966
100-yd. freestyle: Claudia Eckert	Northwestern Univ.	1:01.3	1936
20-yd. backstroke: Joyce Prior	Skidmore	13.1	1965
40-yd. backstroke. Kay Manuel	Purdue Univ.	25.2	1951
100-yd. backstroke: Lorna Dooling	Purdue Univ.	1:10.3	1948
20-yd. breaststroke: Tina Dieckmen	State Univ. College Oneonta, N.Y.	14.0	1965
40-yd. breaststroke: Carol Pence	Purdue Univ.	22.5	1951
100-yd. breaststroke. Carol Pence	Purdue Univ.	1:14.4	1948
20-yd. butterfly: Mary McCrea	Skidmore	11.5	1965
40-yd. butterfly: Kathleen Steinback	Linfield	23.8	1966
60-yd. ind. medley: Clarcke MacDonald	Lewis & Clark	38.9	1967
80-yd ind. medley: Clarcke MacDonald	Lewis & Clark	54.3	1967
160-yd. ind. medley: Jan Rector	Oregon College of Education	2.11.8	1966
60-yd. medley relay: Dooling, Pence, Weber	Purdue Univ.	34.8	1948
80-yd. medley relay: Frank, O'Brien, Dalrymple, Plaugher	Madison	50.9	1967
160-yd. medley relay: Chathain, Anderson, K. Steinback, N. Steinback	Linfield	1:52.0	1966
80-yd. freestyle relay: Perryman, Weeks, Ford, Hebdon	Skidmore	41.2	1942
Laramie, Bergman, Sartor, Bergman	Indiana Univ.	41.2	1948
160-yd. freestyle relay: Plaugher, Critzer, Argenzio, Langdale	Madison	1:33.9	1968

DGWS HIGH SCHOOL SWIMMING RECORDS

Short Course (Pools 25 yards, but less than 25 meters)*

Event	*Name*	*School*	*Time*	*Date*
25-yd. freestyle:	Anne Edgcomb	Palos Verdes, Cal.	12 3	1968
50-yd. freestyle:	Dawn Frady	Foothill, Santa Ana, Cal.	26.0	1970
100-yd. freestyle:	Linda Johnson	Foothill, Santa Ana, Cal.	55.2	1970
200-yd. freestyle:	Cindy Schilling	Van Nuys, Cal.	2:01.0	1970
25-yd. backstroke:	Pam Klotte	Stevenson, Livonia, Mich.	14.4	1968
50-yd. backstroke:	Diane Schober	Newton, Newtown Square, Pa.	29.1	1970
100-yd. backstroke:	Diane Schober	Newton, Newtown Square, Pa.	1.03.7	1970
25-yd. breaststroke:	Jo Ann Reve	Pittsburg, Cal.	16.0	1967
	Susan Riley	Palos Verdes, Cal.	16.0	1968
50-yd. breaststroke:	Dana Schoenfield,	Loara, Anaheim, Cal.	32.3	1969
100-yd. breaststroke:	Claudia Clevenger	Blackford, San Jose, Cal.	1:13.5	1970
25-yd. butterfly:	Alice Jones	Withrow, Cincinnati, Ohio	13.0	1967
	Joyce Ellis	Palos Verdes, Cal.	13.0	1968
	Nancy McCleary	Bellaire, Houston, Tex.	13.0	1968
50-yd. butterfly:	Margaret Welty	Sunny Hills, Fullerton, Cal.	27.2	1969
100-yd. butterfly:	Robin Bacrach	Sir Francis Drake, San Anselmo, Cal.	1.03.4	1969
100-yd. ind. medley:	Kim Brecht	Pioneer, Whittier, Cal.	1:04.9	1968
200-yd. ind. medley:	Mary Medenwald	Speedway, Indiana	2:28.3	1971
100-yd. medley relay:	S. Ellis, Riley, J. Ellis, Edgcomb	Palo Verdes, Cal.	56.4	1968

*DGWS Records are now being accepted for events swum in 25 meter pools.

200-yd. medley relay:			
Lovell, Sunner, Bennett, Welty	Sunny Hills, Fullerton, Cal.	2:01.6	1969
Bennett, Shrader, Woods, Sarver	Sunny Hills, Fullerton, Cal.	2:01.6	1970
100-yd. freestyle relay			
L. Wolf, C. Wolf, Randolph, Anderson	Bellaire, Houston, Tex.	50.9	1969
200-yd. freestyle relay:			
Shrader, McCuen, Bennett, Welty	Sunny Hills, Fullerton, Cal.	1:44.8	1969
400-yd. freestyle relay.			
Golden, Egar, Durham, Bloodsworth	Hoover, Des Moines, Iowa	4:11.5	1971

20-yard Course (Pools under 25 yards, but not less than 20 yards)

20-yd. freestyle: Debbie Gentile	Western Hills, Cincinnati, Ohio	10.0	1969
40-yd. freestyle Dianna Bulkeley	Penn Hall Prep. Chambersburg, Pa.	21.7	1970
100-yd. freestyle: Jane Montgomery	Asheville, N.C.	1:00.0	1970
200-yd. freestyle: Mary Montgomery	Asheville, N.C.	2:04.95	1970
20-yd. backstroke: Jane Mack	Western Hills, Cincinnati, Ohio	12.3	1968
40-yd. backstroke: Lucy Belter	St. Mary's Girls, Manhasset, N.Y.	25.9	1969
100-yd. backstroke: Debbie Robinson	Asheville, N. C.	1:18.2	1970
20-yd. breaststroke. Marty Fletcher	Western Hills, Cincinnati, Ohio	12.9	1967
40-yd. breaststroke: Cindy Holcome	Asheville, N.C.	27.7	1970
20-yd. butterfly: Alice Jones	Western Hills, Cincinnati, Ohio	10.1	1967
40-yd. butterfly: Bargaka Alford	Penn Hall Prep., Chambersburg, Pa.	24.8	1970
80-yd. ind. medley: Mary Montgomery	Asheville, N.C.	50.9	1970
80-yd. medley relay: Belter, Veyvada, Brady, McGlynn	St. Mary's Girls, Manhasset, N.Y.	46.6	1969
160-yd. medley relay: Hartman, Holcombe, M. Montgomery, J. Montgomery	Asheville, N.C.	1:40.4	1970

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